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On the cover . . .

Incoming NAEB president, William G. Harley (right), presents a plaque to outgoing president, Harry J. Skornia, at the NAEB convention in San Francisco, October, 1960. The plaque reads, "Presented to Dr. Harry J. Skornia in recognition of his outstanding service to the NAEB and to educational broadcasting as executive director and president 1953-1960." See Dr. Skornia's farewell presidential address, page 55. (*Photo by Milton Mann Studios.*)



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Controversy in Broadcasting

Is it a keystone to programing?

I have been somewhat outspoken at odd times as to what I believe to be a rather willful disregard as to what should be the potential of television as an art form. I've gone on record on rather numerous occasions to suggest that television's horizons will never be seen — let alone reached — if we presuppose that television programing, and particularly television drama, must be spewed out in an inoffensive, rigidly antisepptic, stainlessly noncontroversial mold. And yet as each new season unfolds there seems to be less and less controversy, just as there also appears to be less and less meaningful drama, either live or on film. On the few occasions when our industry gets up on its haunches and roars, it is accompanied by an obligato of timorous disclaimers and a bubbling, gurgling chorus of network and agency dialogue to the effect that if there are any feelings injured . . . any single housewife offended . . . any rump fringe group in even remote fashion inferentially and mildly rebuked — that this was certainly not the intention of the programers, and a period of mourning will be observed by way

of assurance that no such outspoken deviation from the norm will ever occur again.

By Rod Serling

TV writer—four-time Emmy Award winner. Currently executive producer and creator of "The Twilight Zone." This was his address opening the discussion on "Controversy in Broadcasting" at the NAEB convention, October 20, 1960, in San Francisco.

Let me cite as an example a few recent television shows which had the simple guts, nerve, and essential honesty to take a point of view. Reginald Rose's "Sacco and Vanzetti" was a source not only of displeasure to network officialdom who allowed it to go on, but it was a nerve-shattering trauma. Whether or not it was censored I don't know, but I do know that Rockefeller Plaza in New York looked like a mass psychiatric ward, so desperately frightened were the people involved. In a show of my

own, which told of the incredible and infamous horror of what was the Warsaw Ghetto, I was asked to delete the term "German" and put in its place "Nazi." The pressure group behind this network request was an outfit called The Stenben Society, which, both during and after World War II, existed by and large to dish out protracted apologia for Adolf Hitler and the rest of the animals who made up the Third Reich.

I have seen network continuity acceptance heads request the deletion of a term which read, "men in masks and sheets" because they felt that this was "offensive to the South." And of course we are only too familiar with the classic deletion of modern television in which it was requested that the word "gas" be taken out of the script of "Judgment at Nuremberg" on Playhouse 90 because this, it was felt, would cast aspersions on the gas associations who were sponsoring the show. The fact that the gas used in Nazi slaughterhouses was cyanide and bore no relationship whatsoever to kitchen gas fell under the heading of logic, and it seems that too often logic is incompatible with television programing.

The cases after cases, the instances after instances in which dialogue, theme, concept have been altered, vitiated, diluted, over-generalized and over-simplified are a matter of rather shameful record and need no restatement here. What does need airing is the basic question as to what should be the

function and what are the responsibilities of a mass medium. If we exist only to entertain, if we have a singular function of pleasing people by walking a narrow path down the middle of an inoffensive road, then that's one thing. Our present programing is quite adequate in this regard. If, on the other hand, it can be assumed that television is as much an art form as it is a display case, then it also logically follows that drama, commentary — indeed all programing — must be a dynamic, aware, intelligent, and adult reflection of the times, the problems of those times, and the honest, probing analysis of those problems.

I am not advocating a 6:00 a.m. to 12:00 midnight docket of heavy-flanked shoulders of tough meat so that a television audience can have only gristle to chew, points to comprehend, and decisions to make on the basis of that which is thrown at them. Controversy is no keystone to programing and I doubt if there are any intelligent creative people who would claim this to be a fact. There must naturally be entertainment and very likely the bulk of it must be light. What I'm suggesting here is that there is a large minority audience of twenty-odd million people who flinch at situation comedy and who gag at the superabundance of private eyes, nineteenth century lawmen, and cops and robbers.

If television is truly "in the public interest," then all spheres within that public must be recognized and paid heed to. All levels

must at least be acknowledged if not kowtowed to, and while there is absolutely no doubt that Elliot Ness, My Little Margie, Peter Gunn, Wyatt Earp, and yes, even the outlandish odd-balls who people a place called The Twilight Zone, appeal to certain and sizeable groups of audience, there is a minority of viewers who like their drama considerably more related to life. It's inconceivable to me that, in the several thousands of hours of programing which are made available each week and which in painful almost agonized manner are programed, there seems to be no room for a Playhouse 90, a Studio One, a Kraft, a Robert Montgomery, a Robert Herridge Theatre that need not be syndicated and in a sense shoved through a back door — or any one of a host of shows long since relegated to the vast junk yard of shows which have "had it."

I know, and in many ways I can understand, what the problems are of networks and agencies in their relationships with sponsors. And I can further understand the concerns of the sponsors whose business certainly is to move the product. It is not beyond the pale of my reasoning that a controversial show that engenders sizeable negative audience reaction will provide no impetus to product moving. But it is also a fact and

quite conversely that people who are moved by drama, people who are impressed by it, people who are made to think, to reason, to argue, to talk, by that which they see on a screen—this reaction ultimately will be translated into terms of respect and regard for a sponsor with the guts, the intelligence, and the farsightedness it takes to sponsor something other than a western, a private eye, or a Saturday afternoon football game.

It is a fact of life that no network can unilaterally lay down a set of rules which dictates that from this moment on there are certain programs which will be within their creative domain and can be bought intact by the sponsors or let alone, but cannot be interfered with. This kind of earth-shaking, though relatively simple direction must be taken by all three networks and by all agencies. But come it must, or television will slowly spiral downward until it's a fat, lumpy, gross, and distorted panacea to all ailments related to boredom. It will pander to the lowest of tastes; it will appeal to the least common denominator of intelligence; it will forego its potential as a disseminator of simple, plain, ordinary knowledge and cement itself into a rut which is plastered on all sides by mediocrity, imitativeness, and condescension.

He Who Steals My Purse Steals Trash

The importance of PR

What kind of station do you run? Oh, I know the kind of station you THINK you run, but what kind of a station do your viewers think you run? What do the cab drivers tell their fares when they are given your station's address as a destination? I got in a cab in one of our leading cities and asked the driver to take me to the studios of the educational station, and even though I knew the call letters and the channel number and the approximate location — the cab driver had never heard of the station. This was a VHF that has been on the air for over three years! When I was in commercial television I'd often cringe as cab drivers would say in response to the station's address, "Oh, you mean the station with all the commercials." Recently, when explaining my job to a partner of a brokerage firm in a major city the man retorted, "I hope you don't constantly and incessantly beg for money as the educational station does here."

Think about it a minute. The housewives, the school children,

the bartenders, the businessmen, the editors — what do they think of

By William C. Dempsey

General manager, WQED-WQEX, Pittsburgh. Formerly program director, commercial KPIX, San Francisco. Taken from an address before the 1959 NAEB convention in Detroit.

when your call letters or your channel number are mentioned?

Obviously we are talking about the station's "image." This has become a very overworked term in recent years, but it is overworked because it is important, basic. "Image" by any other name would still exist. Whether you like it or not, whether you planned it or not, your community has a stereotyped picture of your operation fixed in mind! Much has been written about getting the maximum publicity for a *single program* or for

a *special campaign*. My concern here is with the broadcast station as a whole—what it personifies, if you will, to most of your community.

There are two rudimentary steps necessary before any order can be made out of the "image" chaos. First, you must learn just what kind of picture your operation conjures in the minds of men. Second, what kind of picture do you WANT them to have? It is so easy in an altruistic, do-good operation like educational television to take it for granted that everyone knows just what you are doing and how you support what you are doing financially — and that everyone is a hundred per cent behind you. This is an attitude we can entertain only in a fool's paradise. There is an old saying which, like many old sayings, is misunderstood: "If you build a better mousetrap the world will beat a path to your door," you've been told. That statement is only true providing you put up an enormous sign saying, "This way to the better mousetrap!"

How do you seek to be known? As that station with all those stuffy programs? (The BBC was known by such a concept for many years.) As the station that does a good job for the schools? As the station that is helpful in the community? The station that is a part of the community? Do you want each member of your community to think of your operation as "our station"? I doubt if

there is an educational broadcaster that has established that desirable image in his community.

THE MANAGER'S CONCERN

What we are discussing here is the *manager's* concern. Only the manager (or top official) can set the image goal, and only the manager is in the position of having both the perspective and the authority to see that the right efforts are made to achieve his selected image. This is a long, long process. It has taken Standard Oil, with all its millions, many years to overcome the "bigness is badness" image. Whatever images we all have now have been a long time in the making, and it will take a continued and concerted effort over a long period to change them. It has been said, for example, that recognition comes to men twenty years too late and lasts fifteen years too long.

How is an image formed? How is it changed? What can we do about it? Everything a man *does* and everything a man *is* makes up his character. Similarly, everything your *station* does and everything it *is* makes up its image. Perhaps I can best press my point by asking, "How many public relations officers does your station have?" One? Two? If so, it is just limping along! How many employees do you have? Thirty? Forty? Then you should have thirty or forty public relations representatives. Thirty employees wrongly oriented can undo everything one or two public relations

and publicity men try to accomplish.

Lest it appear I'm stretching the point, look at a few of the ways our employees give the public an impression of our stations. Who greets guests at your station during the day? . . . at night when you are not there? How are the guests treated? (Regardless of the fact that they may have just casually dropped in because they are interested in your program.)

How friendly and efficient is your switchboard? How well versed in telephone etiquette are your other employees? Is a caller shunted from extension to extension when all he called for was an answer to a simple question? How are visitors treated? How are job applicants handled? Who takes those difficult calls from "crack-pots" and how are they handled? Unless you know the answers to these and similar questions, and unless you are happy with the answers, you may be defeating all other PR efforts right in your own shop.

Some cardinal rules basic to controlling the image of our stations are these: The entire staff must have an understanding of what you are trying to accomplish in terms of a public impression. Each member needs to be shown the difference between a *salesman* and a *debater*. In answering complaints the customer is always right. You never *debate* him, either by mail or by phone, no matter how right you think you are. Instead

you try to win him over by putting yourself in his position. By genuinely understanding his *feelings*, you can get the "steam" out of his complaint. When you tell an irate viewer that, looking at the problem from his point of view you couldn't agree with him more, there is little left for him to do but to listen. He is then ready to consider the other side of the story.

This matter of how we handle complaints and attacks is most important. In my files there are many examples of successful and unsuccessful "opinion exchanges." You probably have similar collections or can recall such instances. One pertinent example from my scrapbook started innocently enough with a letter from a *happy* viewer. She had written to the *San Francisco Examiner*, the Bay Area's largest circulation newspaper, and this is what she said:

Channel 5 deserves the humble thanks of all the mothers for the wonderful children's movies they televised on "Big Movie" matinee during the Easter week vacation, the best since the Shirley Temple movies before Christmas. Wouldn't it be wonderful if they could do this once or twice during summer vacation?

Commenting editorially, the radio-television columnist Dwight Newton added:

Orchids to KPIX Program Director Bill Dempsey who ordered these afternoon movies for Easter week: "Johnny, the Giant Killer," "Heidi," "The Emperor's Nightingale," "Miracle on 34th Street" and "Alice in Wonderland" starring Carol Marsh. Meanwhile, other stations were

frightening young viewers with the usual afternoon tension builders. Samples: Channel 4, "The Magnificent Brute," "Edge of Darkness," "The Mummy's Hand," "Black Gold," "Gun Belt" . . . Channel 7, "Storm at Daybreak," "Fingers at the Window" . . . Channel 2, "Blackwell's Island," "Stolen Holiday."

HOW TO HANDLE CRITICISM

Naturally, when this paper hit the street there was nothing for me to do but to bask in the warm glow, but what should I have done if I represented one of the OTHER three TV stations? The best route is usually to get mad—*at your own station*, review the policies and practices that lead to such an attack, and officially *ignore* the item. It may not have been read by many and it may soon be forgotten, so the less attention called to it the better. Besides, the columnist will now be harboring a slightly guilty feeling. He has made a grandstand performance at the expense of three out of four stations and chances are, either consciously or subconsciously, he'll be wanting to make this up. Hold on to that possible edge. Without any reference to the above item, "hit" the columnist with a good angle, something positive, to which he can give the full treatment. In most cases it will work. At least that is the way I would have approached the problem had I been one of the OTHER TV station men.

What did happen, however, was the opposite approach. My counterpart at the NBC affiliate decided

to debate with the columnist. Here's what he got for his effort in the *San Francisco Examiner* for the following week; the quote is verbatim.

Nobody'll believe this but I goofed. Last week I praised KPIX for its good taste in afternoon programming during Easter vacation week, and in the same paragraph whapped KRON for unreeling such afternoon tension builders as "The Magnificent Brute," "Edge of Darkness," "Black Gold" and "Gun Belt." *In response thereto, I have a letter from KRON program manager Doug Elleson which reads in part:*

"It is understandable, of course, that during periods of school vacation, there is an increase in younger viewers and if there were enough first class feature film properties with some adult appeal such as the KPIX Easter schedule, I think most every station would make an honest attempt to program as often as possible that type of movie."

So far so good. Now hold your hats.

"My main objection to your column, however," he continues, "is that you were entirely in error with the titles you quoted as running during the afternoons of Easter week. You have actually picked up a schedule that is running during the week of April 7 through 11."

He's right! I goofed.

Doug informs me that the pictures actually televised during Easter week matinees were "You'll Never Get Rich," "The Strange Mrs. Crane," "The Fountainhead," "The Gay Sisters" and "The Letter." *Well, let's see what all this adds up to.*

"The Fountainhead" was Ayn Rand's sophisticated novel about a woman's numerous, red hot love affairs (with Kent Smith, Raymond Massey and Gary Cooper on the screen). Spain, at the request of the church, banned it because of the racy dialogue . . . "The Letter" is W.

Somerset Maugham's definitely adult story which in the movie starred Bette Davis as a woman in Singapore who murdered her two-timing lover . . . Our dramatic critic described "The Gay Sisters" as "up to their necks in good, juicy, scandalous misery. A rattling good scandal melodrama." . . . "The Strange Mrs. Crane" killed a man who threatened to expose her criminal past.

In a way, now, I'm glad I goofed. I thought the KRONiters were just frightening the kiddies with tension builders. Instead, it seems they were inciting them with sex!

Naturally, it goes without saying that ALL mail must be answered. We all say, "Of course; that's a standard regulation in my office." True, but how about in other offices in your shop? People who watch television don't know, nor should they be expected to know, the chain of command you've set up. Viewers write to the people they know — the people they see on your screen. Many of these are volunteers who don't even work for us in the strictest sense, but we must have their understanding help in this area of public relations.

Fund raising, I believe, is an important area of public relations. Those of you who do not solicit funds should look into it. The people who give money toward your operation have a feeling of belonging — in fact, at times they have a feeling of downright ownership! In speaking before local community groups, I am constantly amazed at the number of people who come up after a talk PRIMARILY to let me know that

they donate or that they worked on last year's drive and so forth. We conduct a mass campaign each year and the returns we get for the effort we spend are quite small. Yet these small per-capita donations represent a large segment of the community which has become partners with us. This is most important.

All publications, both formal and informal, that emanate from our stations carry with them an impression of our operations. It is obvious that all such releases should be reviewed with our image goals in mind, regardless of the basic reason for the release.

Community contacts are essential to any business and we all have them. Each of our staff members has a circle of clubs, groups, and affiliations. Indeed, each should be encouraged to maintain these. But like a "preacher's kid," each staff member represents our operation to those groups. Most people judge all Jews by those they know, and Catholics and Protestants likewise. And your community will tend to judge your entire staff by those few they know . . . the ones from their circle. In addition, we and our staffs must be seen in the right places — after all, that's where the "right" people are. We can't expect the community to be excited about us if we aren't excited about the community and thus involved in its activities.

The single most important outside organization is, of course, the press. The care and feeding of

columnists and editors should be the first concern of your publicity representative. The work in this area is fairly easy to assay, for you see the tangible results each morning and evening when you review the TV page. A publicist, however, needs the help of the rest of the staff. Good program people think in terms of "publicity angles," but most important, GOOD program people get information to the publicity department far enough in advance. On a recent NETRC program, we received mail-out promotional pieces on Friday for a show to be shown the very next Sunday. No matter how creative, no matter how well those pieces might sell our image concept, they sit useless in their shipping box.

PR ON THE AIR

By now you are wondering why I haven't mentioned our own airwaves. This one I saved for last. The importance of what we do on the air cannot be stressed too much.

In the first place, we determine *who* and *how many* are going to watch by what we put on the air. If we don't have something for every segment of our community, we needn't expect every segment to watch—or to support us. If we put on dry stuffy programs we are probably going to have dry, stuffy viewers — or at the very best, viewers who like dry stuffy programs. The routine operation gets routine treatment from the

press and routine attention from the viewers. If yours is the station that does things — the station of action—you will find yourself, at times, canceling the regular show for a *special*. The special will get special attention in the press and from the viewers. Sometimes it may be advantageous to group a series of separate efforts into an organized plan for viewing. Let me explain what I mean. If you have a book review series and a musical or dramatic series and a discussion series, you can create something very special by merely coordinating these various efforts around a given theme for a brief period of time. Thus, one may review Galbraith's *Affluent Society* or Edward S. Mason's *The Corporation in Modern Society*, enjoy a musical production of Marc Blitzstein's *The Cradle Will Rock* or a dramatic presentation of Clifford Odets' *Waiting for Lefty*, and thereby better be prepared to watch a discussion on the "Roles of the Corporation and the Union in Society." While this is an overly simplified example, it points out that here we have something of organized value for the viewer, and of promotional value for the publicist. This "special" required no extra station effort other than coordination of the content of existing programs.

Turning this suggestion around one can find good promotional value in grouping a special series of vaguely related topics under a single title or "umbrella." The Columbia network has done this

effectively with topics whose affinity lies almost wholly in the fact that the programs deal with national or international problems. These CBS has grouped together under the title "CBS Reports." Naturally, the programs must be good in the first place—publicity cannot improve on production—but grouping them this way gives a feeling of unity and stature in which the whole becomes greater than the sum of the parts.

The spot announcements which we make between programs can do much to create an image. This is an area where our relatives in commercial broadcasting get into trouble, but we in educational broadcasting can be just as repulsive without ever selling an under-arm deodorant. What do our spots say? Are they attractively done?

Are they changed often enough so that they do not become monotonous? Do we get into and out of them with professional ease? For that matter, how professional do we appear generally?

I have listed some of the ways we get to be known; other ways undoubtedly occur to you. The most important points, however, seem to be these: Everything we ARE and everything we DO contributes to our station's image. Building a desirable image takes time and consistent effort. Since the total station operation involves so many people and so many departments, only a top management individual can have the perspective overview and therefore the ability and the responsibility for Operation Image Building.

Do-It-Ourselves ETV

Author describes a university's first credit telecourse

What are the responsibilities of the coordinator for a television credit course? What cooperation can be expected from the local press in giving the course publicity and how does one obtain this co-operation? How much does it cost to produce a credit course? What are the reactions of neophyte instructors to ETV? These and other questions will perhaps be answered in this brief account of a genuine do-it-yourself ETV experience.

We say *genuine*, for neither the coordinator nor the teachers for the course were experienced in television work. Fortunately, the technical staff of the local ETV station furnished the broad technical framework within which the professors lectured and demonstrated. From the pedagogical viewpoint the arrangement was ideal, for within these very permissive limits the *educational* aspect of ETV remained dominant. Let us recapitulate briefly.

In the summer of 1959 the University of Wisconsin—Milwaukee offered its first graduate credit

telecourse. An education course offered to upperclassmen and graduate students each semester,

By **William A. Jenkins**

Professor of elementary English, University of Wisconsin—Milwaukee, where he has been for seven years. Previously he taught junior high school in Moline, Illinois.

Social Issues and Education, was chosen. The course was given daily for the six-week summer session, 10:15 a.m.-11:15 a.m., over WMVS-TV, the Milwaukee Vocational School television station. Thirty-eight students enrolled in the course: seven graduate students, seven in-service credit students, and twenty-four undergraduates. Five students dropped the course after several lectures, mainly because they felt that the lack of class discussion and contact

with other members of the class would adversely affect their ability to learn.

The first plan for the course was to have it offered by a single individual, preferably a nationally known professor who would give all of the lectures for the course. Failing to find such a person available, it was decided that the course would be offered by a series of instructors who would be brought in for a week at a time, with the entire course being coordinated by one person.

THE COORDINATOR

Early in May a coordinator was chosen to work out all of the details of presenting the course, securing instructional staff, and developing the course sequence. In general, the course followed the pattern used in teaching it on campus. The work of the course coordinator included handling a myriad of details which ranged from assisting the instructional staff (who were coming from distant cities) in finding suitable living quarters, to following through on orders for instructional materials and equipment, to having conferences with the students. The month preceding the offering of the course was indeed a busy one, for, among other things, four changes in instructional staff occurred. Several professors had agreed to offer lectures for the course, and then because of previous commitments, health, or other reasons, declined, and substitutes had to be found for them. The end

result was that three members of the instructional staff came from distant universities: Portland (Oregon) State College, New York University, and Yeshiva University (New York City). The other three members of the instructional staff, plus the coordinator, were regular summer session faculty members of the University of Wisconsin—Milwaukee. The coordinator prepared the course outline, the bibliography, a summary of each lecture, and the final examination. In addition, he handled publicity matters, served on several panels which discussed the various topics, was "stand-by" for the lecturers in case of illness or some other eventuality, held conferences with students on their assigned papers and questions on the lectures, graded final examinations and research papers, tabulated questionnaires mailed on request to viewers, and prepared an evaluation on the entire venture.

PUBLICITY

Approximately 2,000 brochures giving a brief description and outline of the course were mailed to school personnel in the area and to other interested individuals in the state. The university news service was able to place two brief articles in the city's principal evening newspaper and one in the morning newspaper. The newspaper publicity was not as comprehensive as might have been wished, but all efforts were made to obtain more. Toward the end of the

course the evening newspaper featured Adult Education Week and at that time brief mention again was made of the course and a picture of one of the undergraduate students "studying" at home before a television set appeared as a part of the feature. The fact that the student was a young mother of four, anxious to continue her collegiate work and most enthusiastic about the opportunity afforded by the telecourse was ignored by the newspaper.

Additional publicity was provided by the television station. Two weeks prior to the initial telecast, WMVS-TV twice daily gave promotional announcements of the forthcoming telecourse. Upon completion of the second week of lectures, a one-minute "commercial" was given, during which each listener was invited to send in for a "good viewer" test. Seventy-five requests for the test were filled, and forty-three were corrected and the results returned to the viewers. At the end of the fourth week, a member of a panel (a representative from a group working to improve human relations) offered to viewers who would call or write to the station a free calendar. A dozen requests were received.

In addition to serving as publicity techniques, the two offers provided means of measuring audience reaction and estimating the size of the audience. These estimates were useful in determining the cost per viewer of each lecture.

COST

Materials used in the course included nine films (of which, rights to show on television had to be purchased for five); one hundred twenty-five slides; approximately four hundred cards, charts, and graphs prepared by the station artist; four models; and thirty lecture-title discs. A basic set showing the instructor in his office, and occasionally moving to a classroom, was used. The backdrop was a window in front of a rear-projection screen on which various shots of the campus were shown and changed each week.

Air time for the course was given to the university. This policy has since been changed and air time for a course this extensive will now cost \$6,000. Including the cost of materials and instructors' salaries and expenses, the course cost approximately \$4,500. In this case we were fortunate in having a \$2,000 foundation grant to absorb some of the cost. Adding the pro-rated salaries of the technical staff — a producer, director, floor-man, audio engineer, staff announcer, artist, and video engineer — and the cost of the air time, this figure would be raised well above \$10,000.

This amount might appear excessive for the thirty-three students who enrolled in the course. It should be borne in mind, however, that it has been found that programs such as this one reach far beyond the actual course registrants. There is usually a significant audience whose interest is

heightened because the program has the academic validity of being a credit course. Surveys have indicated that the viewing audience runs as high as 1,000 to 1 over the course registrants. Even at a 500-to-1 ratio, the cost per viewer (16,500) per lecture (30) would be less than two-tenths of a cent. On campus, more than one hundred faculty and students viewed the program daily before sets placed at opposite ends of the campus.

INSTRUCTORS REACT TO THE COURSE

None of the six instructors for the course or the course coordinator had previously presented a tele-course or a series of TV lectures. Three of them had never appeared before the TV camera. They were classroom lecturers and teachers who approached the lecture in much the same fashion as they would a classroom lecture — even requesting, in two cases, that a lecture stand be provided. In most cases they were given an hour's orientation by the director, producer, artist, cameraman, and coordinator the morning of their first lecture, plus an hour and a half rehearsal time. However, there was considerable orientation correspondence between them and the coordinator prior to the first lecture. Immediately after each lecture there was an hour's briefing session preparatory to the succeeding lecture.

Each instructor was asked to answer a set of ten questions on his experience with the course.

From their comments it appeared that a certain amount of self-consciousness accompanied their lectures. Warranted or not, a certain extra effort attended the preparation of their lectures. Perhaps it was warranted because of the novel experience, because the course was the university's first graduate-credit TV offering, because of the public relations involved, and because of a sense of competition inherent in a course where there are six instructors. Perhaps, too, the suggestion of the technical staff at the television station — that this visual medium effectively uses visual devices as well as the voice, and a certain precision in timing, delivery, and movement is necessary — had its effect. But the question must be asked whether this self-consciousness, beyond that found in a new experience, is justified. A good teacher is good even though, as one of the instructors sardonically commented, he uses only his "hands, voice, and blackboard." The devices and directions then can only be substitutes for his *presence* in the teaching situation. Both the university and the station personnel accepted this premise.

OUR SKILLS IMPROVE

Like the home do-it-himselfer who cut his first miters any way but true, our do-it-ourselves television initiation will help our miters to be truer in the next undertaking. For example, the next time we shall not merely put on

audiotape the lectures of our expensive lecturers. Videotape will enable us to get more than our money's worth from the telecourse.

We also learned that released time for the person who has the job of organizing the course should be provided. An initial month to ten weeks preceding the start of such a course is the critical time when course outlines must be written, a myriad of details worked out, correspondence handled, and a great many miscellaneous problems met. It became evident that a telecourse which would be handled by one instructor would probably require a semester's preparation, with from half to all of his instructional load being released in order to organize the course.

Adequate publicity over a period of time has to be developed in order that those in the area being serviced may be well informed of the coming course and have adequate time in which to decide whether or not to enroll.

The expense in offering a telecourse is considerable. The released time for instructors, the

preparation of visual materials, the securing of films, the cost of employing studio personnel, and air time itself can make the cost considerably more than that of an on-campus course. Offsetting this, however, is the fact that the audience which may be reached is much greater than those who enroll for credit. The possibility that such a program can be preserved and used with different groups for a few semesters before it becomes outdated is important, for reducing the per-student-credit expenditures is usually uppermost in administrators' minds.

We also concluded that educational television will fail at the outset if all proposals must be justified in terms of cost, or if it must adhere to per-student costs established for on-campus courses. The public subsidizes education. If we try to make money on the public, we are violating this principle. Fortunately, our do-it-ourselves undertaking was viewed as a learning situation for both staff and students and our monetary restrictions were few.

That Significant Difference

Author says there is a difference, subjectively

Much has been written, and many experiments in learning and teaching have been conducted, in that area designated (for want of a better term) "utilization." In evaluating teaching approaches related to the television and radio media, there is little evidence to indicate that the theories of propaganda and propaganda analysis have yet found their way into a consistent approach related to television and radio as media of communications.

Propaganda content and the analysis of this content is often treated as a distinct and sociologically unrelated methodology—unrelated that is to the business of writing, directing, and producing for the radio and television media. We rarely extract from mass communications research and the body of investigation available, principles that we can apply in the classroom situation.

Indeed, soul-searching in the area of what may or may not have been accomplished during the last five years in so-called "mass communications research" has led

many an educational televisionist and experimental designer to the

By Bernarr Cooper

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conclusion that what is known is relatively limited, and what is limited perhaps presents a need for reevaluation of some of the experimental designs that have led to that broad if indeterminate conclusion: "no significant difference."¹

However, the propagandist and the teacher find that apparently, and in the most subjective terms, a "significant difference" does

¹William McPhee, of the Bureau of Applied Research, Columbia University, made particular reference to this at the Speech and Theatre Convention, Statler-Hilton Hotel, Washington, D. C., December 28, 1959; *The Future of Mass Media Research*, "Bases for Pessimism."

exist. And it is these "differences," reflecting as they do social patterns and awareness of the uses to which knowledge can be put, that seem to have implication in a society faced with problems of ideological emergence and growing populations that make increasing claim upon the economic potential of those nations attempting to serve their population demands.

The propagandist is concerned with effecting attitudinal changes in the target group. The educator is concerned with increasing the basic information knowledge of the student and, hopefully, in moving the student from the position of a creature of little knowledge to one capable of using basic information as a means to enlarging his vision of the world in which he lives. Thus, to some extent, the objectives of both the propagandist and the educator are not too dissimilar, and indeed depend upon the broad dissemination of information to accomplish the goals that hopefully should be those of "thinking men in growing social milieus."

Knowing one's political and geographical neighbor thus becomes not only desirable but a necessity in a world whose boundaries are rapidly shrinking and whose peoples need to know better how to live, one with the other, if they are not to destroy each other in the ideological battle for existence.

The implications for broad and quick dissemination of information and materials related to other

peoples and other places are then quite clear. The uses of television to accomplish this end present no problem. The dissemination of information and materials may be at the adult level, and may be limited to adding to the factual knowledge of the viewer. Or, television may be used to disseminate information at the basic level of learning and instruction may be confined to the initial acquisition of knowledge. Adequate samples of such uses of the medium already exist in many communities, and it is only awareness in relating knowledge in the area of "social studies" to knowledge in "economic and historical developments" that requires planned integration in presentation and examination.

From such a method of planned educational presentation arises the obvious problem of integrating the teaching of basic knowledge with the structuring of attitudinal approaches which is the major concern of the propagandist.

At a time of national and international concern with the need for upgrading knowledge, teacher-potential, and teaching methodology, it is a matter of concern that a study should appear that apparently has had both time and money expended upon it, and yet which contributes only tangential, subjective "guesses" as to methods for meeting real instructional needs and solving real problems in teaching methodology. An examination of such a study, and its implications for the future, may prove of some value.

TELEVISION, EDUCATION AND THE ARMED FORCES

Under the formidable title, *Television, Education and the Armed Forces*, the Quartermaster Training Command released a study in December, 1958. [An earlier report, *Quartermaster Training Command Educational Television Study*, was reported in the NAEB Research Fact Sheets—Series I, No. 5.] An impressive list of visitations, persons, and bibliography is appended to this study that would lead the reader to expect a significant piece of research encompassing the areas indicated in the title.

That this study was accomplished under a study fellowship of the Secretary of the Army is a matter of concern not only to the educational televisionist but to all citizens who are taxpayers, for it is the public's money that has backed both the research and the publication of the study. That the study has been published is also worthy of note to the educational televisionist, since undoubtedly reference to a work with such a title will henceforth find its way into the bibliographical references in the fields of television and communications research.

A careful scrutiny of the suggestions of the writer of the study reveals some of the following points, here noted with some suggestion as to implication in the broad areas of instructional television and educational problems:

The writer of the study suggests that we need "nerve centers" of communications to take care of

wartime needs in instructional areas for mobilization purposes. But such a suggestion appears not to differ very much from the same kind of need faced in civilian education, at all levels, in the foreseeable future (at least twenty years, according to some experts on population explosion) without present and upcoming teacher shortage added to the problem.

In estimating future needs in an organization training for war, the writer of the study tells us, "Job descriptions include knowledge, special skills, and abilities required of each man."² Thus it would appear that an organization properly planned for wartime purposes is concerned with the same objectives that are the concern of the educator in a democracy — namely, the concern for the need of imparting a body of basic information early in the educational process. Thus, basic information forms the cornerstone for the development of special skills by the student, and the individual, according to ability, emerges as a contributory member of his democratic environment.

The study points out that a wartime condition will find us with some damaging inadequacies. By implication these are inadequacies in the face of a need to survive. In civilian and military education, he sees a mass input of students,

²Robert M. Allen, *Television, Education and the Armed Forces*, Quartermaster School, Fort Lee, Virginia, 1 December 1958.

a shortage of qualified instructors, inadequate facilities, shortage of up-to-date equipment, and ". . . a doctrinal lag in the incorporation of new concepts, new procedures, and new equipment."³

But what the writer of the study sees as wartime conditions of need, are prevalent in the scope of the modern educational process, too. At all levels we face the mass input of students, and the shortage of qualified teachers.⁴ The cry of inadequate facilities and shortage of equipment is felt in many systems of public education. And certainly to the educational televisionist the resistance to the use of the TV medium for direct teaching, for supplementary education, or for enrichment is not new.⁵ Thus, the study comes to the conclusion that we must find a quick, effective, and reliable medium for training vast numbers of persons with a limited number of teaching exposures. To ensure this the writer of the study recommends the medium that is most effective, most flexible, and most available — television. However,

³*Ibid.*, p. 18.

⁴With tongue in cheek, some basic arithmetic juggling reveals a 15 per cent net loss in numbers of teachers over the last eight years. See *Air Letter*, (Washington, D. C.: The National Education Association, April 20, 1959), p. 1.

⁵Rickover refers to what passes for "enrichment" in the harried teacher's classroom as "Too often . . . a 'make work' or 'make study' project . . ." H. G. Rickover, *Education and Freedom*. (New York: E. P. Dutton and Co., Inc., 1959), pp. 123f.

buried in a footnote he makes the parenthetic observation that, once trained, the individual must be used to the extent and specialization of his training. Greater and more studied care must likewise be used in the selection of students, and commanders must not be permitted to exercise "individual idiosyncrasies" in the handling of people after an expensive education and training experience.⁶

In his discussion, the writer of *Television, Education and the Armed Forces* points out the advantages and some of the mobilization needs of the future in the event of an all-out war. Among the things to which he again gives emphasis are such basic needs as teacher personnel, fast and adequate distribution of new materials and new developments, a fast method of cataloging and adding to instructional materials, bibliographies, reference lists and the like, and the need to be able to distribute instruction on a broad national basis — quickly, adequately, and with some deliberation — to student groups that may be widely scattered geographically.

Taking the approach that "information is everybody's business in time of war," the study also recommends technical setups that make possible links between civilian and military instructional interests, teacher-training of civilian teachers to make possible such interrelationships at the moment of need, and more care and adequate

⁶Allen, *op. cit.*, fn., p. 19.

methods for screening potential learners and teachers. Although the writer presents nothing new in his suggestions for teacher-training, the potential of television to do the training, or the ability of the student to learn by means of instruction offered through the medium, his application of these principles on a civilian-military co-operation basis presents some interesting problems with which to conjure.⁷

While *Television, Education and the Armed Forces* scores the lack of sufficient research in depth in many aspects of the learning process as achieved through the television medium, and although the writer points out areas in which more information is needed and more research needs to be done, he adds nothing to the list already established in the minds of those engaged in such research.⁸

⁷Allen's suggestions concerning the learning effectiveness of the medium have been reported on in many experiments, e. g.: experiments noted in Hideya Kumata, *An Inventory of Instructional Research*, (Ann Arbor, Michigan) December 1, 1956; Charles Siepmann, *TV and the School Crisis*, (New York: Dodd, Mead and Co., 1958), *passim*; NAEB *Journal* reports of "The Effectiveness of Television as a Teaching Tool," for November, 1958; February, 1959; and March, 1959, are but a few examples.

⁸For an interesting list of research areas see: William H. Allen, "Research and New Educational Media: Summary and Problems," *Audio Visual Communication Review*, (Washington: National Education Association, Dept. of Audio-Visual Instruction), VII, 2 (1959) pp. 91-6.

He works the old saw about the need of the psychologists to come up with better answers and better techniques; he is critical of the fact that the television medium is unique unto itself and needs to uncover those special techniques which will completely exploit the medium for the maximum benefits which can be derived. Certainly, the educational televisionist is aware of these needs, and is perhaps more self-critical than the traditional methodology educator.

With some unexplained soul-searching anguish, the writer of the study comes to the conclusion, long-rehearsed, well-worked-over, but never abandoned that ". . . educators are not television producers and television producers are not usually educators . . ."⁹ What the writer fails to note is that some progress to close the gap is being made. There is a concerted effort, however limited at the present, to teach teachers to become producers and to encourage the TV producer who would work in the field of educational television to learn more about the objectives of education. On a ringing note of subjective despair and cataclysm, the study suggests that it is the duty of the television theorists and practitioners ". . . even to save the world from catastrophe and chaos" — perhaps too large an order for a small band of underpaid, underprivileged, and outnumbered "servants in the public good."

⁹Allen, *op. cit.*, p. 38.

Yet the "discussion" portion of the study has real implication for use in a course in utilization if compared with some of the findings that are known about the viewing habits of children. It is at this point that reference to the Nuffield Foundation's *Television and the Child* clearly indicates that progress in the understanding and use of the television medium may be brought into sharp focus. Whereas Allen's subjective treatment and occasional guesswork as to the potential of the medium are sometimes stimulating, the Nuffield Foundation report puts objective bases under the hitherto proposed theory-of-communication-potential of the television medium.¹⁰

Although the study under discussion is concerned with educational instructional needs that clearly indicate a similarity between those of the military and the civilian, its writer deplores the fact that ". . . too frequently the Armed Forces will consult with and rely upon the recommendations of a civilian personality (sic) a college president, dean or professor, who has but a vague picture of the actual situation and ramifications of military training requirements."¹¹

Since the teaching methodology of military instructors is a result of some 2,300 years of traditional

classroom evolution, there may be definitively good reason for the armed forces to turn to the so-called "civilian personality" that has proved itself a very "military personality" in time of war. It may be a little too radical a departure to require any democratic peoples to believe that a uniform (civilian tailored) is a criterion for the judgment of instructional need or indeed a criterion for understanding the basic needs that may exist in instructional services, in or out of the armed forces.

Television, Education and the Armed Forces is interspersed with broad generalities, of alarmist proportions and "loaded" phrases that do not always take into account the awareness that exists in the minds of educational televisionists who pursue an objective investigation of the use of the medium to achieve maximum educational, informational, and cultural results.

Perhaps the most glaring errors of inconsistency and proliferation are manifested in those sections of the study that have to do with "recommendations," and "observations." The writer suggests a co-ordinating agency under a single management that will coordinate the work of agencies that coordinate research and investigation. Among the glaring disproved generalities are his recommendation that we do away with "dull teaching personalities," a recommendation that this writer's experience leads him to believe might well be initiated among the instructional ranks of the armed services. The

¹⁰Hilde T. Himmelweit, A. N. Oppenheim, Pamela Vince, *Television and the Child*, a study sponsored by the Nuffield Foundation, (London: Oxford University Press), 1958.

¹¹Allen, *op. cit.*, p. 38.

author of the study recommends such overused experimentation as the superimposure for summaries and the use of small rather than large expensive visuals. He scores the networks' experimentations with educational telecasts with broad generalities that might well apply to all of the mass media: radio, books, films, newspapers.

Most objectionable in the entire subjective study is the obvious effort to recommend a hypothetical organization FOR WHICH

THE TAXPAYER WILL BE CHARGED, and in which there shall be expensive and ramified experimentation with methodology, techniques, personnel, and materiel that have already been experimented with and proved undesirable.

Perhaps the knowledge of the writer of *Television, Education and the Armed Forces* needs updating on what the educational televisionist has already investigated.



Miss Maryo Van Deman uses the overhead TV system to magnify the manuscript of a song for her students. It was also used to show original manuscript, on-the-spot freehand charts, a piano keyboard, and scale intervals from the bells.

Music Teaching 1960

The unique value of overhead tv

Anyone who has been a student in a large music class (or a teacher of one for that matter) can appreciate how difficult it is to see or show the various music materials necessary for such a course. These materials may range in size from a single measure of "one-copy-only" music to a full-size piano keyboard. Somewhere between those two extremes it is necessary to show such hard-to-see materials as guitar chord fingering and "one-copy-only" scores.

It occurred to this writer (an ex-musician) that overhead TV might be of real help to the classroom music teacher in these hard-to-see, hard-to-show situations because of its unique ability to magnify — with a variable field of view — materials, both two-dimensional and three-dimensional. For instance, the teacher could enlarge a single measure of music to fill the entire 21" screen. Keyboard exercises could be shown to all members of a large class without asking them to leave their seats and crowd around the piano ten deep. Or, if the lesson happened to be about fingering positions for guitar chords, the

teacher could demonstrate under the camera and the students would actually see the chords as the

By **Warren L. Wade**

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teacher was forming them on the neck of the guitar. They would be seen from the subjective point of view and would be enlarged to full screen size. Of course, exams could be administered under the magnifier from a single copy (thus reducing the chance of future compromise) and the display of the questions via TV during post-exam discussion could insure that all parties concerned (students and teacher alike) were talking about the same thing at the same time.

The idea of using the camera directly overhead (the "overhead TV" application which we have found so tremendously valuable in

a wide range of subject areas) did not dawn fully until a day or two before the opening of the spring semester of 1960. This left little enough time for us to locate an instructor who would be willing to cooperate, to secure interdepartmental clearances to manufacture the necessary nonstandard equipment (e. g. overhead camera stand), and to give it one trial run before the first day of class. Certainly there was not adequate time to draw up a hypothesis which could be absolutely tested through a carefully designed and controlled experiment. Therefore, it was decided that the spring "experiment" would serve as a trial run only, to determine whether or not the use of TV in teaching music would be worthy of a full-fledged study at a later date. The only answers sought would be the following:

1. Does student achievement (in comparison with classes from previous semesters) recommend the use of TV next semester?
2. Do the students recommend the continued use of TV during the next semester? If recommended, why? If not recommended, why?
3. Will the teacher recommend the continued use of TV during the next semester? If recommended, why? If not recommended, why?

The necessary arrangements were rushed through channels and the experiment was ready to proceed on the first day of class. A

beginning class in music education was chosen as the experimental group. This particular subject was picked because it was very wide in scope. It was concerned with various forms and methods of developing basic music concepts and skills with elementary teachers-in-training, and was designed to present and build fundamental concepts and techniques in basic musicianship.

The cooperating music instructor was given a ten-minute lesson on how to operate the overhead zoom lens just before the first class meeting and was quite capable of proceeding on her own from there.

The answers which were received to all three of the aforementioned questions were most encouraging. The answer to the first question (student achievement) was perhaps the most startling of the three. The students scored far higher on the mid-term, performance, and final exams than did previous classes, and the instructor was able to present material to this class during the remaining eight weeks of the semester that she had never been able to cover in some three years of teaching the subject at UCLA.

The answer to the second question, "Do the students recommend TV's continued use next semester?" was equally interesting. An attitude survey form was issued at the end of the second week of class. The same survey was issued again at the next-to-the-last meeting of the semester. No major

shift in student attitude toward the use of TV in the course was discernable. The survey form used offered the responding student an opportunity to rank TV's effectiveness as an aid to learning from his point of view. The students were asked not to sign the evaluations. It was assumed that they would respond more freely and frankly if the authorship were to remain anonymous.

A five-step rating scale was used. If a student gave the medium a rating of (1) it meant that he felt that TV was helpful to learning, (3) had no effect on learning, (4) somewhat hindered learning, and, (5) hindered learning. With this scale, the students were asked to measure the effectiveness of the overhead TV magnifier as: a music manuscript magnifier; a concept visualizer in general and specifically as a visualizer for rhythm, tone, and form; an aid in learning instrument-playing techniques for the autoharp, recorder, guitar, piano, bells and other percussion instruments; an aid in learning musical notation; and finally, an aid in learning instrument recognition.

The results of this survey can be summarized as follows: 95.90 per cent of those students responding were highly favorable to the use of TV in teaching basic music education, felt that it had been of considerable help to them in their learning endeavors during the semester and recommended that it be used again the following

semester. Only 2.87 per cent were undecided and less than 1.23 per cent were very unfavorable. It is interesting to note that one of the two students who did not favor the use of TV in the course qualified his response with the following comment: "I don't think TV is a good method of teaching or learning. As much as TV helped us in learning how to play the autoharp, for instance, I just don't care for the idea of learning through television."

On the other hand, the following examples are typical of student comments on the positive side: "I could play the notes by putting my fingers in the right positions while looking at the screen." "Without the screen it is harder to see the finger movement of the person playing an instrument." "Saves time not having to write charts on the board."

The third and final question, "Will the teacher recommend the continued use of TV during the next semester?" is answered by the classroom instructor, Miss Maryo Van Deman, acting assistant professor of music education at UCLA, in the following discussion which she was kind enough to prepare for this article:

* * *

The overhead TV magnifier is a tool that gives new and exciting dimensions to teaching to be tested by the resources of many teachers and the performance of many classes. Its use during this

single course has been one of the most extensive challenges I have met in my thirteen years of college teaching.

Student attitude and achievement outdistanced those of previous classes so notably that continued use of this new technique in presenting basic music to college students is imperative. The instructional value of the overhead magnifier depends fully on the resourcefulness and insight of the instructor, given effective equipment.

This technique gives the instructor constant direct contact with each student and uncharted responsibilities in controlling class speed and content, makes on-the-spot coverage available through viewing of ideas as they are created, in addition to re-showing of these visuals at any future time. The instructor is given freedom to respond at once to student reaction and to move about the room while a student demonstrates to the class through the TV monitor.

Discovery of further approaches to music in education, using the overhead magnifier, may well include (1) youth leadership and in-service teacher-training programs, (2) some instrumental techniques instruction and, (3) extensive investigation in musicianship and theory, particularly basic ear-training and score reading.

Technical difficulties and new techniques present problems that are dwarfed by the tremendous potential gain in learning and in vis-

ual communication. In the music course which relates symbol to response, perhaps the most unique function of the magnifier is its concise assistance in relating the seeing, hearing and performing of musical ideas—a three-way coordination that so often eludes group instruction.

* * *

In addition to the aforementioned conclusions, it was possible, through an analysis of the comment section on the student evaluation forms and the tabulation of the class evaluator's daily notes, to derive certain other useful information from the semester of experimentation. First, the most effective use of the magnifier, according to the students, was its use as an aid in learning to sight read. Second, in strength the students stated that it helped them understand musical form. There was a tie for third place between chording and rhythmic concepts. And they recognized learning values from instant and direct charting, as evidenced by many varied comments.

An evaluator (a trained musician) was present for each class session from the first meeting of the semester to March 30, 1960, for a total of fourteen meetings. An accurate record was kept of the number of times the teacher used the magnifier for each of the aforementioned purposes. Its use as a chart, notation, and manuscript magnifier far outstripped all others. Second in frequency of

use was that of the piano keyboard magnifier and tone concept visualizer. During the second half of the semester the magnifier was focused most frequently on musical score and chording charts.

One other interesting, one-time-only, experiment was carried out in the field of music during the spring semester of 1960 with very encouraging results. Two cameras, one mounted vertically over the piano keyboard showing three octaves and the pianist's hands and the other presenting a close-up of the pianist's feet on the pedals, displayed their pictures on two 21" monitors (one mounted on top of the other) simultaneously and continuously. This simultaneous-continuous pictorial presentation of the hands and feet in closer-than-natural proximity and greatly magnified, allowed the students to observe pianistic pedal coordination in meaningful, visually comfortable proximity. Another experiment included the use of a third

camera to present the musical score being played by a student of the piano on a third monitor. The other students were able to check pedal coordination, fingering technique, and score markings without having to take their eyes away from the TV monitors.

The results of the experiments described above were so encouraging to the faculty of the Department of Music that the use of TV was extended during the next semester to service five new classes. In addition, UCLA is undertaking an extensive experiment covering all possible uses of TV in teaching music. We feel that this use of overhead TV might well be investigated by other music departments throughout the country.

This was the first use of overhead TV on the UCLA campus. Since that time, we have expanded its use into ten other subject areas. Early data indicate that overhead TV will be as useful in these subject areas as it has been in music.

Frame and Focus

with Vernon Bronson

It is the hope of this column to frame and focus on a number of things which may be of interest and concern to you in the months ahead. It may be a new idea, or an old idea that needs re-stating, a problem solved or one that needs solving, a book to be read or an experience shared. Whatever it is will be concerned mainly with the professional aspects of our vocation, and will touch very lightly if at all on the trade association and network side. In any event it will be offered respectfully for your consideration and action or reaction, as the case may be.

This brings us rather hurriedly to the San Francisco convention, and to the pièce de résistance of professional and intellectual fare served there. Four men who have won international renown for their accomplishments conducted a symposium on the nature of creativity. They were Mortimer Adler, Charles Eames, Edward Teller, and Sylvester "Pat" Weaver—all men of great stature and wit, and concerned with high purpose. The outpourings were received with mixed emotions by those present and the reactions were probably as varied as the listeners; but for those who were not present, I hope I don't

do too much violence to the ideas by briefing the presentations for you.

Adler, as was to be expected, took a somewhat metaphysical and semantical approach. He said that creativity is divine in nature and reserved to God; that only God can create, and that man can do no more than produce from the effects of God's creation. He said that the highest form of production had two aspects. It should be original in the experience of man, and it should have a purpose, a reason for being.

Eames, the artist in the group, said that creativity sometimes comes from randomness of thought and experience, and its sources can not be regulated or confined; but that the nature of creativity is love, love of the creative effort and a loving concern for the object of that effort and for its beneficiary.

Teller, the physical scientist with a touch of the philosopher, said that from his experience the nature of creativity was interest, a passionate interest that absorbed and inspired, and directed the effort.

And finally, Weaver, the humanitarian, said that the nature of

creativity was the effort to arrange a better order of things, to make a better world.

Of course a lot more was said in the symposium, but all else was introductory and explanatory and caused no change in the central ideas. It seems to me that in some measure these men were all right in their notions, and to a large degree they were all saying the same thing, expressed from the vantage point of individual experience. Be that as it may, I think from the essence of their thoughts that we, as educational broadcasters, have a body of criteria which ought to guide our own professional efforts.

And speaking of professional efforts, it seems there is a continuing segment of audio-visual specialists who want to establish a permanent dichotomy between the a-v specialist and the radio-television specialist. Much discussion has been had on this subject in the professional journals recently, but the crux of the matter seems to be that the television specialist must be competently familiar with a-v materials and techniques, and the a-v specialist ought to be just as competently familiar with television materials and techniques. Both specialists are educators first, or ought to be. The Division of Audio-Visual Communications of the National University Extension Association is one organization which seems to be devoting its efforts to resolving this problem. It is making an effort to bring together the various specialists and

by mutual understanding and co-operation improve educational communications in university extension activities. It had a meeting to this end scheduled for the San Francisco convention of the N. A. E. B. under the chairmanship of Armand Hunter, but because of a conflict in scheduling it failed to come off as planned. Dr. Hunter did manage to hold an impromptu seminar, though, with the few persons who wandered in, and it was generally agreed that an important spot should be found in the program of the next N. A. E. B. convention for the D. A. V. C. of the N. U. E. A. It now has a meeting scheduled at the April convention of the D. A. V. I. in Miami, and I am sure many of our members will want to attend.

In re D. A. V. I., I hope that any of you who have not read *Audiovisual Instruction* for October, 1960, will look it up and do so. It is devoted to av-tv, and has many interesting comments for your consideration.

It seemed to be the thinking of many at San Francisco that future conventions of N. A. E. B. should tend to take on a more professional character, and should devote more time to this aspect of our meetings. In the next issue we plan to discuss this matter at greater length. In the meantime, if you have any comments on the subject we would be happy to have them. Cut!

Put the Show on the Road

Commissioner pleads for all-uhf tv

I was interested in reading a speech delivered recently by an executive in commercial television circles. I sensed that the author was understandably proud of the merits of his own work else he would not have mailed me a copy. The topic under discussion was crime and violence on television. He first attempted to prove statistically that crime and violence on TV were a requirement on broadcasters in order to please all tastes. He claimed that no one to date has affirmatively demonstrated that liberal doses of crime on TV are bad for children and assured his audience that television critics' charges of "moral squalor" in the industry are completely without foundation.

My reaction was immediate. It occurs to me that if anyone were to speak on the subject, "Are Excessive Doses of Crime and Violence on Television Good for Children?" he might have a more difficult task.

I have the greatest respect and admiration for the vast majority of commercial broadcasters and commend them for their general public service contributions, particularly in the field of emergency

communications for purposes of National Defense, with which subject I have a rather intimate knowledge. I consider a commercial

By Robert E. Lee

Federal Communications Commissioner since 1953. As FCC defense commissioner, he coordinates and directs FCC civil and defense mobilization activities, including the CONELRAD program.

broadcaster to be in rather a tough spot. He must entertain and enlighten. He competes with other media of entertainment and other stations, and unless he gets his share of the advertising dollar he must go off the air and thus serve no one. It appears to me, however, that in evaluating his own program material he has borrowed the "thou shalt not" approach to standards of decency and morality from the movie industry. I question whether the public interest is necessarily served by limiting crimes and violence to some arbitrary

number or set of circumstances. To the extent that radio and television mold public opinion and behavior — and I consider that they do—the broadcaster has a great responsibility. I am sure that the vast majority of commercial broadcasters, and the major networks, are aware of this responsibility. I question, however, whether some of the broadcasters serving some of the public some of the time is an adequate discharge of their responsibilities and results in public betterment. The test as to whether certain programs or stations may *deserve* the public is clearly not adequate as a standard.

On the other hand, the *positive* approach is inherently prevalent in the field of educational broadcasting. Rather than what you shall *not* do, what you *can* and are willing to do is the essence of progress in your planning.

I have been gratified at certain recent developments which should lend impetus to educational broadcasting.

First, I believe the NAEB has been wise in opening an office in Washington, D. C. In this day and age, whether you like it or not, in whatever field of endeavor you may find yourself, Uncle Sam seems to be in partnership with you, even though you are tax exempt.

Secondly, I congratulate you for securing able engineering assistance in evaluating your spectrum needs over the long-range future. I believe, as I shall develop shortly,

that many of your problems will evaporate if we can only solve the technical problems before us.

I am, likewise, gratified that the educators in Milwaukee, following the lead of Pittsburgh, have applied for a UHF channel to augment their operation in VHF. I am convinced that multi-channel educational broadcasting is a must. I am happy to see that some educators are also of this view.

NO VHF SPACE

I am pleased that at long last the uncertainty surrounding the availability of more spectrum space from the military has been completely put to rest. In the event you are not aware of this fact, let me say that the FCC has been told, officially, and in great detail, that no VHF space will become available because of compelling military requirements. Further, I at least read into this justification that we had better find a way to better utilize the UHF spectrum in TV or turn it over to someone who *will* use it. There may be those among you who are disappointed that additional VHF space has not and will not be made available. Justifiably, perhaps, none of the educators heeded my prediction that the cause would be futile. It now is dead and it seems to me, to steal a phrase, the educators must now make an agonizing reappraisal of just what road to take.

I have written letters to the NAEB and to the Secretary of Health, Education and Welfare

urging my view — that to wait for more VHF channels to drop in our laps was to inordinately detain the normal development of educational broadcasting.

With this mental impediment now removed I trust that prospective educational broadcasters will make a more effective use of the channels reserved for this purpose — even though they be UHF channels in VHF markets. If the principal job to be done is to enhance the curriculum of our school systems, it matters little, or so it seems to me, whether you broadcast on UHF or VHF. Receivers must be purchased for the schools in any event. Receivers capable of utilizing UHF signals are only slightly higher in cost than the old-fashioned VHF receivers.

But my concern goes somewhat deeper. I am sure that educators will ultimately recognize that one educational station in each major city may be far from enough to meet the demands of this generation, much less of future generations. Further, the rural population should not be required to play second fiddle again in this new electronic teacher as it did in the development of electric power dissemination. It is axiomatic that spectrum space to meet these demands is available only in the UHF portion of the spectrum.

In hindsight, let us admit that the commission itself must share with industry responsibility for failing to more fully implement the spectrum by the development of the

UHF band. I am, however, reminded of a parallel in the development of the FM aural broadcasting band. In this case, the commission provided both bands for aural broadcasting. In this case, economics and competition dictated the impracticability of manufacturing a saleable radio receiver that would receive both signals. Hence, FM was stifled and only a few short years ago important segments of the industry laid the "posey" on the grave of FM. The commission and the public, however, refused to accept this demise and by constant encouragement the demand for this superior service made it practical to improve receivers to the point that FM is coming into its own. Conversion of electronic gadgets is not new to the American scene. In my own lifetime, as a boy in Chicago, I witnessed the gradual conversion from direct current to alternating current. If we can put men into space, and I believe we can, American know-how can certainly make an improved receiver that will receive both the UHF and the VHF signal with comparable efficiency.

NEW YORK EXPERIMENT

With the unequivocal denial of additional VHF space, the recently approved Congressional action of providing funds for a government-controlled experimental operation of a UHF television station in New York City takes on additional significance. This project will have an important impact on the future

course of television, both commercial and educational. I do not know what the ultimate conclusions of this test may be but I think I can enumerate the possibilities.

- It may demonstrate that the UHF is a superior service in a metropolitan area and that we may safely move television into UHF.
- It may demonstrate that UHF will not work well within the metropolitan area and we will have to continue use of VHF in such locations.
- It may demonstrate that it will work well but because of the economic factors relative to making it work well, it might not be practical in large metropolitan areas.
- It may develop improved receivers and improved broadcasting techniques that would make it more competitive with VHF signals.
- By cooperating with New York educational people to permit them to program in time periods not essential to our test, a local interest might develop a real demand from the public for UHF receiving sets.

NONBROADCAST COMMUNICATIONS

Obviously, there is far more involved in this matter than the outcome of broadcasting which, being the most glamorous of the services we regulate, gets the most attention. The entire economic and cultural growth of our country depends upon rapid and efficient communications. Mobile radio is the only feasible means of rapid

direct communication between base stations and the many vehicles that must respond to their direction. The mobile services are invaluable aids to industry, police, fire fighting, forestry, educational institutions, and innumerable other private and public services which touch upon our welfare in every conceivable way.

These mobile services and those of a similar nature provided by the common carriers have been long crowded into a relatively narrow portion of the spectrum which can scarcely contain them. While technological improvements in transmitters and receivers have permitted a narrowing of bandwidths and hence a more intensive use of the bands of frequencies allocated to these services, nevertheless the development and use of mobile service is still seriously hampered in most of our large cities. There are new demands created by modern modes of living that cry for satisfaction. Busy executives flying on commercial aircraft need to contact their business associates by telephone yet the use of air to ground telephone is carried on only on a limited basis because of serious frequency shortages. These conditions exist despite the fact that frequency space in many large portions of the spectrum is going unused. Just how much longer the commission can permit this situation to continue without adjustments of some kind is difficult to say. In any event, I proposed last year that the commission move all of television

to UHF and thus give the tired twelve VHF channels to mobile services. This would help both the television and mobile industries by providing a new incentive to operate UHF stations, commercial as well as educational. Accordingly, the means would be provided to realize an effective nationwide television system and to satisfy the requirements of the other industries and public services to which mobile radio is such an important adjunct to their efficiency.

There are several avenues of approach to achieve these results and I don't claim to have a monopoly of ideas. Presuming that the commission ultimately and shortly agrees with me, as do many with whom I have spoken in government and industry circles, we should forthwith publicize our plans to move television into UHF in a period of five to seven years. I say shortly because the pressures of other potential users of UHF space are certain to grow and become increasingly difficult to resist. If our New York City test shows that UHF signals do not provide an adequate service, of course we would have to turn to other alternatives. However, I do know that where UHF is not subject to VHF competition, service is excellent because the stations in a given market are prosperous and therefore programing is excellent. Very recently we undertook to remove two VHF stations from the Fresno - Bakersfield, California, area and while not yet fully im-

plemented, some four applications have been received for additional UHF stations in the market. It is my confident prediction that the present economy would easily support 750 commercial stations and ultimately many more instead of the 560 odd now on the air. The future will support many more.

At any rate the commission's course, while not clear, may not be swept aside because it is difficult and I am confident that this body will come to grips with the problem under the very able leadership of Chairman Ford and his colleagues for whom I have the greatest respect and devotion.

RECOMMENDATIONS

Having thus "buttered" them up, I recommend to them the following course of action and for these suggestions I take no pride of authorship and devoutly trust that it will not become known as the "Lee plan." Actually it is a compendium of ideas that make a great deal of sense to me.

1. We should immediately put to rest any notion that the solution lies in squeezing in substandard VHF assignments which in themselves create substandard service and have a concurrent depressive effect upon UHF set manufacture and UHF station growth.

2. We should and we will press for legislation that television sets transported in interstate commerce be capable of receiving all channels in the television broadcast band.

3. We should forthrightly move

forward to deintermix markets where UHF development is ripe so that the number of all-channel sets in use will increase and thereby create incentive for the manufacturer to make the all-channel set while he is about it. This should be the interim plan.

4. We should impose a permanent freeze now on new and improved VHF stations.

5. We should allocate available and newly released VHF frequency space to nonbroadcast mobile service, both to common carriers and to private users. In this connection, as soon as the necessary rules were promulgated I would permit these services to share the VHF channels on a secondary or noninterference basis.

6. We should dissolve the table of television assignments, retaining only the educational reservations and, of course, existing engineering standards.

7. We should license new UHF stations to the lowest channels available in their particular areas using a system whereby we would assign channels to the licenses we issue in the order in which we make grants and thereby eliminate the time and expense of comparative hearings as well as providing the incentive to apply.

8. We should permit VHF stations to operate both in VHF and UHF, contrary to our current rules until such time as it appears appropriate to discontinue the VHF service.

9. Dependent upon the availability of program choices in given

areas, we should permit these stations to duplicate their VHF service with appropriate announcements that as of a certain date only the UHF would be available. This would eliminate the impact on the public since a television set is normally replaced in a maximum of five years.

10. We should examine the reasons why networks refuse affiliation to small station markets beyond the normal service area of another affiliate. It may be that refined rules or even, perhaps, legislation is necessary.

11. In the event the above course of action is adopted by the commission, I would put a short temporary freeze on new UHF operations to permit existing operations to apply for the best UHF channel available.

While each of the affirmative actions which I advocate is designed to move television into UHF and to make VHF spectrum space available to the mobile and common carrier services, there is but a small degree of inter-dependency of one upon the other. But if the commission chooses in its wisdom to follow these principles in whole or substantial part, I have no doubt that shortly its objectives would become a reality.

You, as educators, no doubt recognize that you have a substantial interest in these matters from several viewpoints. Aware as you are of the advantages of more television stations in underserved areas and particularly educational stations, you must also adjust your

viewpoints on the suitability of the UHF for these purposes.

Secondly, if the commercial stations are to be shifted voluntarily or otherwise to UHF it becomes increasingly important that educators stake their claims in this spectrum space and that they not complacently rely on the reservations of the commission. At the risk of sounding ominous you might as well get your oar in early in the recognition that one educational station in an important market is not necessarily enough for today and tomorrow. There need not be disappointment in your

ranks ten years from now if you chart a course of action now.

You are in an enviable position: There is plenty of spectrum space in UHF now available; educational stations can be put to useful purposes in serving limited but ever-growing audiences without economic competition in the market place; educational interests can apply for unused commercial channels yet commercial interests cannot apply for channels presently reserved for education; you have grass roots support for your plans, your programs, and your progress. The rest is up to you.

Letters to the Editor

September-October Issue

Regarding the article "What Does It Take to Teach by TV?" . . . I wish to object to the fact that the station or city was not identified. The Journal reaches a number of teachers who are not familiar with the practices of ETV, both good and bad, and this article becomes an accusation against all ETV as long as the station is not identified. Constructive criticism is needed, but why punish those stations which do have good relations with their teachers?

JOHN R. HANEY
Producer-Director
*WUFT-TV, University of Florida
Gainesville, Florida*

(Ed. Note: The location was not identified because Ginni Mock, author of the article, has moved since the experiences she recounts, which occurred at the University of Wisconsin.)

I can appreciate the problem you have in trying to get articles like the one by Ginni Mock, and I would like to commend your progress in giving more "meat" to this approach. We need more of it.

I would like to commend Mrs. Mock for her approach, understanding, hard work, and willingness to pioneer in education. Being a school board member as well as having been on a university staff, and in industry, I can appreciate her problems. I have also been trying to gather some information for some teachers here on how TV teaching is different from that in the classroom. I get a number of these questions and have referenced your Journal many times. I would like . . . to express a sincere appreciation of [Mrs. Mock's] efforts on TV and her writing the article . . . It was well done. I hope she will do it for some other media.

LLOYD P. MORRIS
National Systems Consultant

Motorola Inc.
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Chicago 51, Illinois

* * *

Today I received my September-October issue of the *NAEB Journal*. I have read it from cover to cover and consider it to be the best issue to date as far as being helpful, practical, and valuable to me personally. Hence, I hurriedly thank you for this superior job.

WANDA B. MITCHELL
Head, Department of Speech Arts
Evanston Township High School
Evanston, Illinois

November-December Issue

Congratulations on the *NAEB Journal* for November-December, 1960. From my selfish point of view, it

was the most useful issue thus far, especially the Trump article. We need a technological revolution.

FRANCIS G. TOWNSEND
*Head, Department of English
Florida State University
Tallahassee, Florida*

* * *

We would like to point out to you that in the [bibliography] by Fellows & Woodliff, an important source of TV lighting information was omitted. We refer to the articles published by the Illumination Engineering Society which is referred to as the I. E. S.

A booklet on black and white lighting for TV, dated 1951, and one on color practices, dated 1955, suggest methods still current today. These are available free of charge from Kliegl Bros. — or they may be obtained in quantity at a small charge from the I. E. S. Headquarters, 1860 Broadway, New York 23.

The I. E. S. Lighting Handbook has an up-to-date section on TV lighting which should be especially helpful to the beginner. It is available from I. E. S. Headquarters.

There is another article, recently authored by me—"Lighting for the TV Vidicon Camera"—which is available from Kliegl Bros. or in quantity from G. P. L. TV Educator, Pleasantville, New York.

HERBERT MORE
*Manager, TV Division
Kliegl Bros. Lighting
321 West 50th Street
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How Good Are the Rating Services?

A critique in social psychological terms

The recent history of television rating services, as all of you know, has led to a kind of confusion, distortion, and downright frustration on the part of all the important decision-makers in the television industry. Some comments (such as the one made by a famous comedian, who asked how his program could be rated when he had never known anyone who had been asked if he watched it) reflect an almost complete lack of knowledge of sampling techniques. In other words, the very basic assumptions of audience research are apparently not very well understood.

Another point of confusion seems to center around the apparent differences in ratings of the same program reported by different rating services. As a result of this, there seems to develop a game of selecting for sales purposes the rating service most favorable to the program being represented by a particular advertising agency or television station. But even then the one selected may prove disappointing at the next comparative go-round, when still

another rating service will appear which rates the program higher

By **Richard I. Evans**

Professor of psychology, University of Houston. Taken from an address before the Southwestern Association of Program Directors for Television, Houston, March 7, 1960.

than the favorable rating service selected the previous month.

Still another point of confusion has centered around the whole concept of audience size as a criterion by which television programs are or should be judged. The widely stated example of the "I Love Lucy" show and Philip Morris cigarettes illustrates this quite well. As you know, "I Love Lucy" was consistently top rated by all of the major rating services for a period of time, but Philip Morris cigarettes, the sponsor's product, continued to stand fourth in national

sales throughout the entire period. Finally, the tobacco company cancelled its sponsorship of the program. Perhaps the most optimistic statement in defense of the audience size criterion concerning this was the reported remark by the advertising agency account executive representing the program, who stated that without the program the sales of Philip Morris cigarettes might have actually declined. This implied that the success of the program in terms of audience size contributed to the continuing success of a failing product, a comment undoubtedly not relished by the Philip Morris executives.

I should like to discuss very briefly the major audience rating services, their techniques of contacting the television homes which they select in their respective samples, the nature of their samples, and some of the advantages and disadvantages of their respective approaches. In order to base this analysis on the most fundamental data, we wrote to each of the major rating services and requested as much of this information as they had available. It is interesting to note that some of the rating services were extremely cooperative, supplying comprehensive reports of their sampling and measuring techniques, while others apparently limited their information to advertising "blurbs." In these instances, it was necessary to seek more detailed information about their sampling and measuring instruments from other

sources, which may or may not be authoritative or up to date.

The final point in my presentation will be an attempt to look at this problem in general and make some suggestions as to how audience studies in depth could conceivably supply new insights concerning the television audience and their responsiveness to programs in terms of buying behavior with respect to the sponsors' products. Such insights might conceivably challenge the notion that programming policy should bow to the criterion of the size of the audiences which programs can command.

SAMPLING THE AUDIENCE

In attempting to assess audience reaction to a given television program, probably the first question that should be raised is: Who exactly is the intended target for the program? Educational television, for example, as well as some public service programming, is admittedly not designed to attract all interest groups. On the other hand, a good deal, if not most, commercial programming seems to be designed as a kind of "shotgun" technique to gain viewers simultaneously from as broad a base as possible. In other words, there is no doubt that the average commercial television program is designed to appeal, if possible, to interests in as large an audience as possible. Assuming for a moment that we are now interested in assessing the audience for such a program on one of the major television networks, what we techni-

cally define as the universe for the program automatically becomes all of the television homes in the United States. It is apparent that every member of that universe cannot be reached for the purpose of audience studies. Sampling theory would therefore require that a random or truly representative sample of this universe be contacted. Let me illustrate this point with an analogy. If a physician wishes to learn something about the structure of a patient's blood, he does not have to drain all of the blood out of the patient's body and examine it. He can study even a single drop of blood and form an accurate picture of the structure of this patient's blood in general. (Incidentally, this example is not intended to suggest what some of you may already believe—that television rating is a bloody business!)

In theory, a sample is truly representative only if every item in the universe has an equal opportunity to be selected. To insure this, tables of random numbers are typically used. Alphabetical lists of all the items in the universe may be used instead. In some cases, for that matter, all of the items could simply be put into a hat, shaken up, and a sample drawn.

Now, the critical point here is that if every television home in the universe has an equal opportunity of being selected, then, in terms of probability theory, how many television homes have to be selected in order to have a truly representative sample? Here we apply a

variation of a statistical formula designed to give us the standard error of a percentage, based on the levels of confidence we desire. For example, in a study that we did of the over 300,000 television homes in the signal area of Channel 8 in Houston, this formula estimated that we would have to interview respondents in approximately 600 television homes to be accurate within 5 per cent. On a national survey of voters, to take another example, surprisingly great precision could be obtained by sampling in the neighborhood of 10,000 randomly selected voters. Such statistical license to sample, I repeat, can be exercised only when every single item in the universe has an equal opportunity of being selected.

Another very important, fundamental point relative to this problem is that if we are considering a universe of all television homes in the United States, and we draw a sample which represents this large group, then breakdowns in terms of subgroups of the total universe, such as, say, a large metropolitan area like Houston, cannot be reliably estimated from the sample selected for the overall United States universe. In order to get a true representation of the metropolitan Houston area, the universe would now have to be defined, as in our earlier-mentioned Channel 8 study, as the television homes in the Houston signal area, and a sample in terms of this particular universe would have to be drawn. It is entirely

possible, for example, that on a national sample of the universe of all television homes in the United States, sampling rigor could be theoretically exercised when only nine or ten television homes in the Houston area are contacted. This, however, would hardly be a statistically sound basis for making inferences about the Houston market.

These few remarks about the elements of sampling should emphasize the necessity of rigorous adherence to theoretically justified sampling procedures, since any departures from such procedures, slight though they may be, can completely invalidate the significance of the data obtained. Suppose, for example, a certain rating service wishes to obtain a sample for the entire United States. Their statisticians select a random sample based on one of the area sampling methods. They even list the specific television home in every part of the United States that is to be contacted by the interviewer. Now let's assume that, among other things, electronic recording devices must be installed in the television sets in these homes. Certain individuals refuse to allow such devices to be installed in their homes. If the residents of a home that has been selected in the sample refuse to participate, a rating service representative might proceed to knock on doors in the immediate vicinity until more co-operative television viewers are found. This procedure introduces what we technically refer to as a biased sampling error. Without

proof, we have no reason to believe that individuals who allow electronic devices to be placed in their homes are basically similar in personality characteristics, such as television viewing behavior, to individuals who do not allow such devices to be placed in their television sets. In this example, we might have a well-defined sample, carefully selected by expert statisticians working out of the rating service headquarters; we might have a very accurate electronic device, at least in the sense of actually recording when and to what channel the television set is tuned; yet all this precision is vitiated by the introduction of a biased sampling error at the field contact level. Many other possible sources of sampling errors in audience research could be cited.

MAJOR RATING SERVICES EVALUATED

Of the marketing organizations engaged in television audience research, four have emerged as the leaders in establishing program ratings. These are the A. C. Nielsen Company, Trendex, the Pulse, Inc., and the American Research Bureau. These organizations are staffed, in my opinion, with competent statisticians and research methodologists trained in such fields as psychology, sociology, and marketing. When critically evaluating the validity of reports by these firms, therefore, one is seldom, if ever, justified in asserting that deficiencies or inaccuracies are due to incompetence or lack of sophistication in the theoretical

planning stages of their audience studies. Most of the problems critically affecting validity, as we shall see, appear to emerge in the operational stages of the studies.

Among such possible sources of error in audience studies, one of the most important is the interview instrument itself. Any inaccuracies arising from defects in the structure of the interview form or recording device are referred to as instrument errors. If their form or content tends to bias responses in any way, an instrument error is operative. For example, when the aided recall method is used in an interview, the interviewee is given a list of all the television programs presented in the area on the previous day and asked to indicate those he viewed. He may be inclined to mention programs that he viewed only briefly or inattentively simply because they are listed before him — programs which, without the aided recall technique, he would probably have failed to remember. The fact that he recognizes the name of a program on the list cannot be taken as an indication that he viewed the entire program with attention. This would be particularly true of the advertising message tied in with the program.

The so-called viewing diary is also susceptible to instrument errors since data recording is done entirely by the respondent without supervision. Theoretically, the viewer places the diary on top of his television set and records programs at the time of viewing. Actually, he may not fill in the diary

until the end of the week or later, relying on memory when he does so. This time lapse introduces the possibility of faulty recall, which may completely distort the record of his week's viewing.

Another factor affecting the validity of the diary method is what we might call a combination instrument and sampling error. The moment an individual is selected to maintain a diary of viewing behavior, he becomes atypical. As a result, he may alter reports of his viewing to create a particular image of himself, to reflect what he conceives to be his ideal behavior rather than his actual behavior. Such a viewer might actually watch a number of western programs, for example, but omit them from his report, substituting, for the sake of his self-esteem, programs which he believes to have more intellectual or artistic merit.

The A. C. Nielsen Company employs an electronic device, the Audimeter, which is attached to the television set and records the time it is turned on and the channel to which it is tuned. Nielsen maintains Audimeters in 1,000 television homes selected on the basis of an approximation of random area sampling. The participating family is paid 25 cents per week and one-half the cost of any set repairs for allowing the Audimeter to be attached to the set.

When first introduced, this device was hailed as the ultimate solution to the problem of accurate audience measurement, one which would insure reliable results. It

obviously does not depend on individual recall of programs watched nor does it require any particular effort on the part of the viewer. Yet it soon became evident that this was not the final, fool-proof method of audience evaluation. For one thing, the great expense of installing and maintaining the Audimeter makes it economically unfeasible to utilize a sample of the statistically most desirable size. It was soon revealed, moreover, that from 5 to 8 per cent of the Audimeters were out of order or not functioning properly at any given time. Another obvious flaw in this instrument is that, even when it is working properly, it supplies only a part of the desired information. While it clearly reveals set operation, it does not indicate who, if anyone, is watching the set, a matter of great importance. As many of you will recall from the old days of radio, almost continuous operation of the radio, whether anyone was listening or not, became a habit in many households, where radio was part of the background of family life. There is already some evidence that a similar habit is being formed with respect to television.

Another limitation of the Audimeter in terms of program planning is that it may take three weeks or more of processing to adequately evaluate the data obtained. Still another criticism, to emphasize an earlier example, which applies not only to the Audimeter but to every method which requires some kind of cooperation

from the television viewer, is that, no matter how carefully a sample of television homes is selected, there is always the possibility that some individuals in the sample may be unwilling to cooperate. As a result, the sample actually used is not a sample of all television homes in the universe under consideration but rather a sample of all television homes whose residents are willing to participate in audience studies. This certainly suggests the possibility of a biased sampling error, since one would suspect that individuals who refuse to participate in such studies differ significantly from those who agree to participate.

In recognition of possible sources of error affecting the Audimeter, Nielsen began partially verifying Audimeter results by employing viewing diaries. Again, as noted earlier, viewing diaries also present possibilities of instrument error. Furthermore, since Nielsen apparently uses a relatively small sample in its diary surveys, it would hardly be feasible to analyze the results in terms of national markets. There is no reason to suppose, moreover, that one less than perfect measuring technique, the Audimeter, supplemented by another still less adequate measuring device as used herein, the diary, will necessarily provide a more accurate audience measurement than either technique by itself.

TELEPHONE USED

As many of you recall, the late C. E. Hooper pioneered an audience evaluation technique called

the telephone coincidental method. Trendex, an offshoot of the old C. E. Hooper group, which apparently no longer specializes in radio and TV audience research, employs the telephone coincidental method in twenty cities throughout the United States. This method has the virtues of easy analysis, immediacy, and great flexibility. The limitations of samples based on telephone listees, however, have been conspicuously apparent at least since 1936, when the *Literary Digest* flatly predicted on the basis of a poll based in part on a sample of telephone homes that Alfred Landon would defeat Franklin Roosevelt in a landslide. In those depression days, of course, telephone subscribers were relatively wealthier, on the whole, than the general population and therefore more likely, in those days, to be Republicans. Today, of course, telephone listees are more representative of the total population, yet samples drawn from telephone subscribers may still reflect definite biases. It is well known, for example, that in many metropolitan areas, new housing developments are often without telephone service for a considerable time. Television viewing behavior in such developments may not be adequately represented in samples based on telephone listees. A still more serious limitation of telephone surveys centers around the "time-of-contact" problem. Telephone calls to viewers for the purpose of surveys can hardly be placed later than, say, 10 p.m. without the risk of dis-

turbing sleeping households and precipitating great wrath.

The Pulse, Inc., bases its ratings on personal interviews using the aided recall type of instrument which was discussed earlier. The sample apparently consists of approximately 8,000 television homes per day. Because of cost considerations involved in such large numbers, such interviews must be completed quickly. Therefore, their aided recall instrument allows for interview lengths of only approximately eight minutes. Such rapid interviewing is open to serious question, since without time to establish sufficient rapport even the most skillful interviewer would be hard pressed to get accurate responses from interviewees. From our own experience in audience research, we discovered that short interviews often result in hasty decisions on the part of interviewees, who invariably sense the "let's get it over with" attitude which interviewers in such situations are prone to project. We noted earlier the possibilities of instrument errors inherent in the aided recall technique in general.

The American Research Bureau has made an especially careful effort to obtain accurate data through utilization of viewing diaries. This organization not only attempts to sample with precision 2,000 representative television homes in the national television market, but also demonstrates sampling precision in local television markets. In an attempt to prevent the development of the artificiality in responses referred to

earlier, ARB changes its sample of diary-television homes every month. The viewer is asked to maintain a diary record for one week, recording the name of the program, the time, and the channel when he sets the dial. As suggested earlier, the less conscientious viewers may fill in the required information not after watching each program but at the end of the week, thus introducing the possibility of recall errors. Perhaps the most basic criticism of the ARB method, however, concerns the percentage of diaries returned. Although ARB claims as a selling point that from 60 per cent to 70 per cent of the diaries are returned each week, the fact that around 35 per cent are not returned introduces a very significant biased sampling error. After all, even though a television viewer has agreed to participate in maintenance of a diary, one cannot force him to complete and return the diary, nor can one assume that those who are negligent in this respect do not differ appreciably from those who fully cooperate.

In the last several months, as all of you know, the American Research Bureau has introduced an electronic meter, the Arbitron, which is perhaps the most dramatic development in audience measurement devices to date. These instruments, which are placed in representative television homes, are connected to a central data center in which information concerning the operation of the television sets is instantaneously recorded. With the use of elec-

tronic computers, it appears to fulfill the need for immediate audience assessment. However, the elimination of the three-week period for data processing seems to be its only major advantage over the Nielsen Audimeter, since even the most amazing electronic device will not solve the sampling problem created by viewers who simply do not wish to have such devices attached to their television sets because they regard them as an unwarranted intrusion on their privacy. At present the Arbitron is operating, of course, in such a few markets (apparently only seven cities) that it has had only a limited application, so a truly fair evaluation of its potential could not, of course, be made at this time.

PROBLEMS IMPAIR ACCURACY

In this brief discussion of the various audience rating services, we have seen that the methods of every single one of them are susceptible to either instrument or sampling errors. As mentioned earlier, I am convinced that the major audience rating services, without exception, have excellent researchers planning their studies, but because of the nature of the behavior that is being studied — television viewing — the operational end of such research is bound to be affected by the kinds of errors that we mentioned which, unfortunately, cannot be easily offset by even the best planning. Therefore, aside from anything further that can be said

about audience ratings, these problems involved in implementing such audience studies tend to seriously impair their accuracy. They also provide at least a partial explanation, of course, of the frequent inconsistencies among the reported results of the various services.

Incidentally, another basis for this inconsistency lies in the fact that a kind of rank order of television programs is drawn from the rating data. Since a margin of error has to be contended with in the rating of any specific program during a particular rating interval, such error may cause chance rank order differences among the various rating services. In order to overcome this source of error, it would have to be recognized that comparisons of the rankings of specific programs over several rating intervals to determine long-term trends should ideally be incorporated. In the opinion of Dr. Samuel Becker, chairman of the NAEB Research Committee, such analysis of program rankings would demonstrate greater reliability than could be obtained from making comparisons among the services on the basis of any given week's ratings.

To confound the picture even more, however, the data obtained by the rating services are placed in the hands of individuals who see them in the setting of advertising economics and use them in a manner which tends to distort further the over-all picture of audience ratings. If you were the account executive of an advertising

agency, the temptation would be great to cite only the results of the rating service which rated your program most advantageously. Moreover, if only national program results are purchased, and these national results are favorable to the program being sold, it might be a great temptation to misrepresent national results as being applicable to certain regions in which sponsorship for the program is sought, when such representation, as we pointed out earlier, is by no stretch of the imagination based on a representative sample. To remedy this situation, most of the rating services also sell regional surveys, of course. But these regional surveys are often sold on a cost-per-sample-television-home basis, which, due to cost-cutting efforts, frequently results in the purchase of rating information not only beset by all of the sampling and instrument errors referred to earlier, but also by the additional problem of samples of inadequate size.

Still another problem in interpretation is the reduction of television ratings to what is technically referred to as a percentile standard score system, which was pioneered by the late C. E. Hooper. This system reduces any audience rating to a kind of percentage basis, with 100 being optimal. The transformation of audience sizes into percentiles leads to an illusion of uniformity which may not be statistically valid. When comparing ratings of 30, for example, on any level, regional or national, we must also take into consideration

such problems as the number of viewers or television homes in the universe (depending on which is used as the basis of audience size), the number of television stations in the market, the number of television sets that could be expected to be operating at given times, and so on. You have divided your program schedules into such designations as A, B, and C periods in an attempt to indicate relative numbers of sets that could be expected to be tuned in at various times. Ratings must take such factors into consideration when percentiles are projected into the size of the audience claimed for any program.

It is interesting to note that in the interest of more precision, cumulative viewing patterns are now being considered by some of the rating services. This is important in comparing programs that have multiple weekly presentations with those that have bi-weekly presentations, and so on.

Another example of the kind of problem that is now recognized by some of the rating services is the factor of overlapping viewing behavior, particularly in the case of longer programs such as the so-called spectacles. We know that viewers may watch the first portion of one program, switch to another program, and then later switch back to the original program. This kind of behavior on the part of the viewer cannot be ignored in an adequate evaluation of viewing behavior.

These are all examples of the kinds of complex interaction vari-

ables that should be very seriously considered in interpreting rating service results and which further underline the difficulties in correctly applying rating service data. As an approach to solving these problems, a form of motivation research, which, as all of you know, has begun to permeate the field of market research generally, is now being employed in television audience studies to a greater and greater extent. The basic assumption underlying motivation research as used here is that data obtained from a smaller number of individuals interviewed intensively, although obviously less representative in terms of sampling size, may reveal significant unique audience interests that, from the standpoint of programming strategy, could be a good deal more valuable than simple quantitative statements of sheer audience size, such as most rating services traditionally report.

If we ponder for a moment the notion of a television program designed as a background for the delivery of advertising messages, we may begin wondering whether the kind of quantitative mass appeal so often employed in program content may not eventually create indifference to the advertising message. The viewer, as he becomes more sophisticated, may begin to perceive the fact that the program is designed for a universal target group. He may then tend to react to the sponsor's messages much as he does to form letters, ignoring them in general as having little interest for him as a

unique human being. Is it not possible that advertising messages might be more effective in a context of programing directed to a somewhat smaller audience but clearly appealing to the members of that audience as *individuals*?

An example of characteristics of special audiences was apparent in a recent audience study that we completed under terms of a grant from the National Educational Television and Radio Center. In this study in depth of the educational television audience in the Channel 8 signal area, we discovered, as we expected, that the size of educational television audiences was very small—so small, in fact, that our criteria of frequency of viewing had to be very crude. We had to designate as “frequent” viewers those who viewed the station as seldom as two times per week or more. A surprising number of respondents viewed the station as infrequently as once a month. Yet even by our crude definition of frequent viewers, the frequent viewers differed significantly from the infrequent or non-viewers. To quote from our research report distributed by the National Educational Television and Radio Center in 1958, “The frequent viewer of educational television does seem to differ from the infrequent or non-viewer in that to a statistically significant extent he is more likely to vote more frequently in elections. He actively discusses the content of the educational television programs he watches with friends, and he appears to feel that he benefits

from such discussions. His leisure time activity seems to be dominated by participative self-improvement activities. . . He is generally more active, information minded, self-improvement seeking, and civic minded than the non-viewer . . . The frequent viewer appears to be a viewer who counts in the sense that he is inclined to actually put into practice information that he receives.”

As you can see, this picture of a minority audience is very provocative since it suggests that the true impact of educational television programing extends beyond the group of actual viewers. Another illustration of the effectiveness of programing directed to a smaller audience can be found in the loyalty of the growing numbers of FM radio listeners. The members of this audience appear to demonstrate their appreciation of special programing by their response to sponsor's appeals. Most reports indicate that FM listeners are more responsive to advertisers' messages than audiences reached through the typical “shotgun” kind of programing which is intended for almost everybody.

If marketing research organizations would expend as much effort in examining such qualitative aspects of the behavior of television audiences as they do on the usual nose-counting techniques, they would, in my opinion, discover that buying behavior could sometimes be stimulated more successfully by recognizing unique needs of certain individuals in the television

audience than by appealing at all times to a mythical common denominator. This is not to say that programming for a mass audience would have no place in the industry but rather it suggests that such upgrading of programming in terms of the interests of different audience groups could not only reduce the intensity of some of the basic criticisms of commercial programming, but also, in the long run, increase the effectiveness of programming as a means of influencing the viewer's buying behavior.

This would also, of course, require a vast program for the re-education of advertisers. At a minimum, however, this appears to be a crucial hypothesis that should be thoroughly tested.

Not all of you will agree with all of the observations I have made. But perhaps all of you might think seriously about the possibilities for upgrading programming which could result from unshackling ourselves from such a limited criterion of programming success as audience size!



WHAT CAN YOU DO

- 1—Be an INTERESTED PARENT.
- 2—~~Give~~ NEW IDEAS and EXPERIENCES to enrich vocabulary and stimulate thinking.
- 3—Help REFINE IDEAS your child already has.
- 4—TALK with him. DISCUSS the things he sees.
- 5—REPEAT THE SAME EXPERIENCES frequently. Meaningful repetition is basic to all learning.
- 6—HAVE BOOKS IN THE HOME. Surround your child with GOOD BOOKS.
- 7—READ to your child.
- 8—Use OTHER INTERESTS to lead your child to READERS.
- 9—Provide a PLACE TO STUDY in the home.
- 10—Provide RELIABLE SOURCES OF INFORMATION.
- 11—CONSULT RELIABLE SOURCES to help you find GOOD READING for your children.

Elizabeth Marshall reviews points emphasized in televised reading course.

How to Use TV to Aid Reading

A study in community cooperation

The importance of *reading* in everyday living was recognized by the Family Life Conference of

By **Elizabeth E. Marshall**

Assistant director of radio and TV, Chicago Board of Education. She was "imported" to coordinate the project because of her experience in ETV and particularly in the area of school-community cooperative programs.

Des Moines, Iowa, when its 1959 planning committee decided to devote the annual conference exclusively to this medium. Accordingly, "Richer Through Reading," a community cooperative television program, resulted — and for the first time Des Moines held a Family Life Conference of the Air. I was asked to help plan the program, to write the script, and to serve as program moderator.

Through the concerted efforts of the planning committee, the department of elementary education of the Des Moines Public Schools, the department of library services of the Des Moines Independent Community School District, the department of home services for the Public Library of Des Moines, the Des Moines Council of Parent Teacher Associations, the Young Adult Book Discussion Group (junior and senior high school students) of the Public Library of Des Moines, the department of adult education of the Des Moines Public Schools, and the public affairs department of commercial Station KRNT-TV Channel 8, home - school - community interests and resources were pooled in an hour-long parent education program emphasizing *reading* as an essential skill, needed at home, in school, at work and at play . . . for success in school, on the job, and in personal life.

Why was the television medium chosen for this presentation? That more people might be reached to

benefit from the conference, for the committee felt that many who were most in need of this kind of personal parent education "help" were unable to attend in person. Then, too, TV presentation was desirable because of its ability to underline the spoken messages with visual illustrations of community resources and demonstrations of ideas, methods, and techniques interpreting how reading can make life richer.

Dramatized vignettes showed viewers how they might instill and develop a love for reading in children of various age groups. These scenes were based on ideas and methods tried with success by parents and teachers. Spacious studio facilities (two large studios, three cameras) and expert production assistance furnished by Station KRNT-TV contributed largely to the program's success. Eight major program segments were incorporated in this "TV spectacular," as the committee enjoyed calling it — including scenes in the home, the classrooms, and the libraries. Additional community resources and their respective services were featured through filmed segments. Film close-ups, selected for their appeal, were used also as interesting background under the open and close "crawls."

Basically, this was a how-to-do-it program, the *know-how* shared with the viewers through TV *show-how*. Designed for practical help to parents of children of preschool, elementary, junior and

senior high school levels, the program was built to encourage good reading. Specific objectives included:

- To encourage good reading to help children and youth toward greater achievement and richer reading.
- To stress the importance of reading in our daily lives.
- To acquaint listeners with the vast "riches" of reading: information, knowledge, excitement, adventure, pleasure, beauty, enchantment, and relaxation.
- To introduce the wealth of good reading resources ready to supply these limitless "riches" in the *Des Moines* community, and to stimulate listeners to take advantage of the facilities and services offered.
- To show that building the desire to read and developing good reading habits are the *joint* responsibility of home and school.
- To demonstrate what the home can do and what the schools and the libraries are doing to broaden children's reading interests.
- To emphasize the importance of *togetherness* — of home, school, and community working together to achieve desired goals in developmental and enrichment reading.

A complete script (available on loan from the writer) was developed to insure organization and timing throughout. A chart was presented underlining what parents can do. That the program was successful in achieving its goals

is evidenced in the outcome of a special evaluations project conducted by the Des Moines Council of Parent Teacher Associations among civic leaders, educators, and parents. Some of their observations were:

REMARKS FROM VIEWING CRITICS

"The presentation was tops . . . a finished production, not amateurish or mediocre. The classroom situations demonstrated *good teaching* with young learners *enjoying* their reading experiences. The program was positive and constructive. It would be well for it to be repeated so that more people may have the opportunity to benefit from it."

"It was certainly an informative program for parents of pre- and school-age children. It was well-organized and the number of scenes used kept it from being dull."

"There were suggestions for those parents already stimulated; and there were ample suggestions for the inactive parents at all levels. This was a very commendable undertaking — a new approach locally, worthy of imitation in other localities under proper guidance and leadership."

". . . We thought the program was very professionally done and *rich* in practical suggestions for parents and teachers. In fact, we couldn't think of anything which had been left out!"

"More parents should have this kind of inspiration and advice.

They would like to guide and develop good reading habits but so few know how!"

"This is one of the finest programs I have seen for some time . . . Please advise if there will be a series."

"Strong points: Theme, content, correlation and organization; careful planning; definite goals; Mrs. Marshall's superb work; public services well emphasized; child-participation appealing and appreciated; filming excellent; of educational value to ALL: children, parents, teachers; positive and constructive."

TEACHER COMMENTS

One of the participating teachers writes: "Literally scores of parents and teachers have telephoned, written, and told me personally that they felt the presentation was tremendous.

"The popularity quotient of a telecast, particularly one designed to inform and stimulate a large group of people on a subject as academic as reading, however, cannot be considered to be the sole criterion for judging the effectiveness of the program. Those of us who have been working in the area of the teaching of reading for some time are cognizant that the child who is mechanically perfect in the job of reading but who does not have the desire to read will not develop his maximum potential. *Increased interest in reading*, at least in part resulting from the

telecast, was evidenced by children in classrooms wanting to check out more books, and parents requesting teachers to prepare book lists for their children."

James Sheldon, director of the department of adult education, writes: "Another fine aspect of this program was the fact that many people representing different organizations were involved, not only in the planning but in the production as well. This is a most worthy procedure in any type of community endeavor."

The following came from the director of the Public Library of Des Moines, Dan A. Williams: "It was a very happy experience for the library to have participated in this activity. Many comments have come back to members of the library staff from parents who viewed the program, indicating a new awareness of the role of the public library in assisting children of all ages to broaden their reading horizons. Furthermore, many viewers became aware, through the film sequence, of the Parents

Room at the Main Library and the collection of circulating juvenile recordings of stories, drama, and music. Another significant value of the program was to demonstrate that school libraries and public libraries should and do work hand in hand in developmental and enrichment reading programs. We are quite confident that by the televising of this conference many parents were reached who are not regular users of the library and thus we hope stimulated to think in terms of the library and its resources."

Viola James, director of School Library Services, writes: "The positive and constructive information in the script and the well-prepared bibliography, which could be obtained for the asking (program give-away), were valuable for those who wanted to implement the ideas given about the pleasure of reading. 'Richer Through Reading' was a most successful educational experience for all of those who worked with the show and for all of those who saw it."

The NAEB: Past and Future

Retiring president sees challenging future

It was in the last weeks of 1952—almost exactly eight years ago—that I was first offered the position of executive director of the NAEB. I have never been sorry I took this position in 1953. I count as fortunate the day I was invited to undertake these responsibilities. The type of loyalty, support, and confidence I have enjoyed through these years has been the source of the greatest professional and personal satisfaction to me.

In a talk called "The Irresponsible Society," printed in the BBC *Listener* of August 11, Richard Titmuss remarks: "'We are breeding,' it is said, 'a new type of human being: a guy with a full belly, an empty mind, and a hollow heart. It is the age of the shrug, dripping with fat . . . selfishness and social unconcern.'"

I think it is because we are not, as a group, unconcerned in any sense, that we find so friendly and respectful a response from so many others around the world, who are surprised at how different from the usual U. S. stereotype we seem to be. Far from being fat

and snug, it has generally been the NAEB's lot to be lean and hungry. In that fact may lie part

By Harry J. Skornia

Executive director and president of the NAEB from 1953 to 1960. Taken from his farewell presidential address before the NAEB convention, October 18, 1960, San Francisco.

of the explanation for our make-up and attitudes. The NAEB has been through rough seas. In all these buffettings I don't believe it has ever hidden, or been evasive. In some cases it has identified jobs too big to undertake by itself. In each such instance, it must be said on its behalf, it has helped to organize the mechanism necessary to meet the need — whether this meant fighting for frequencies, or helping launch the JCET, or supporting the creation of the

Center, or helping create an educational media council, or supporting the efforts of the U. S. Office of Education, or a score of others.

Always we have been in the midst of battles — or perhaps I should say crusades. Some scars can be noted here and there.

If I may express a wish for the NAEB, it is that it may always remain lean and active — and never be made flabby by soft living or smugness over good works.

Perhaps we have communicated a bit too much with ourselves. But in an organization like this, internal agreement on basic goals is essential before we move out of the trenches in any given campaign.

We're a motley crew, I imagine, as seen by an outsider: idealistic, as befits educators. Yet most of us, having seen "service in the front lines," have a certain toughness and practicality in our veins. We know we must often compromise — but not about principles. We're a bit short on money and authority. We have to work with people instead of ordering them around or buying their loyalties. In spite of our position, our influence seems to be generally respected. We're perhaps almost "cliquish" in some senses — and I know this is one of our weaknesses. But I do have more than a passing affection for the dozen or so pioneers in our group who have come through the equivalent of "the wars" together. And if this affection shows, let it.

Perhaps I might speak briefly about the NAEB's role in the international affairs area. This, as you know, has been an area of special interest to me. Through the years we have become increasingly active in common efforts with UNESCO, the European Broadcasting Union, the International University of the Air, and in exchanges with a dozen foreign broadcasting systems. I think I can now tell you that the NAEB has never been in a better or stronger position in international affairs and activities (regardless of what other groups may also be doing in this field) than it is right now.

In recent months the NAEB has been selected as the association with which several U. S. agencies, and other groups active in the international arena, would negotiate, contracting for consultation and other assistance in helping to establish educational radio and television systems in many parts of the world. Already several NAEB members are on the job in Africa, for instance. Other NAEB members are working for U. S. official agencies in the international area: USIA, ICA, and others. More will follow. I believe that the time is not far distant when the NAEB will need to engage a full-time international relations department to coordinate, service, and expand our many activities in the international field. And with that step, the NAEB will already be far along toward becoming the *International Association of Educational*

Broadcasters, which I have in earlier years suggested as its eventual role.

More and more in recent years the NAEB is called upon to advise. Besides our work with agencies and individuals on international problems, we provide consultants to other U. S. professional associations. We advise with the State Department, the Federal Communications Commission, Congressional committees, the U. S. Information Agency, the International Cooperation Administration, and other groups. We consult with manufacturers on new and needed equipment and developments. We consult with educational philosophers about new curricula and techniques needed. We consult with psychiatrists and psychologists on the often unintended effects of these media. We exchange ideas with specialists in other media: print, film, etc. More and more we are looked upon as professionals and specialists in the uses of these media — not only for limited educational uses but in their broader implications as well.

In this role we must repeatedly and firmly declare what we stand for: for spiritual and moral as well as practical values, opposing every form of degradation of these media with all our strength. Though we believe in "our" media, we are not publicity agents for them. To be effective, the NAEB must meet the need to become the national and international professional association to which appropriate problems will be referred. And it must continue, by its

actions rather than its words, to demonstrate its competence and deserve this confidence.

Huge sums, by any standards, are beginning to find their way into electronic media for education. The NAEB can neither control nor prevent such actions. It can only applaud them and assist in identifying needs requiring such help. But unless or until new structures emerge to do so, the NAEB must do its utmost to promote profitable collaboration, to reconcile conflicts, to be on the side of the angels instead of necessarily on the side of power. For, and this too we must remember, money is not necessarily the measure of excellence in our field.

* * *

All that I have said so far is undoubtedly true. It is a record we can all be reasonably proud of. But I would like now to bear down on a few things close to my heart, since this will be my last chance, as your president, to do so. I'd like to end up by telling you what I think the NAEB must undertake in the next stage of its life cycle. For today, in my opinion, represents the end of the second or formative phase in the NAEB's development — the first having been what we might call the "social club" phase, which ended when the NAEB set up a full-time office.

What I have to say now might be divided roughly into four parts: the nature of the crisis in the world today; our behavior in this

situation; what the NAEB can do, on a short-term basis, to help; and the longer-term role which the NAEB must now face up to.

Recently Dr. Dallas Smythe, at a meeting at the Annenberg School of Communications at the University of Pennsylvania, gave a talk entitled "The Spiral of Terror and the Mass Media." Several of my remarks in the next few minutes are taken from, or stimulated by, that talk.

In it Winston Churchill is quoted, from his Fulton, Missouri, speech of 1946, in speaking of the nuclear threat: "The dark ages may return, the stone age may return on the gleaming wings of science, and what might now shower immeasurable material blessings upon mankind may even bring about its total destruction. Beware, I say: time is short."

Dr. Smythe points out, however, that the atomic threat is only one of many. Bacteriological developments are as bad or worse. A botulinus toxin is available, of which a glassful, properly distributed, would kill everyone on earth.

The power of a madman or a faulty transistor (at a time when even our missiles seem to demonstrate plenty of such failures) in the sense shown in *On the Beach* or *Alas, Babylon*, is today incalculable. But even this is as nothing for one interested in visualizing the true spiral of terror. The day is coming fast when not only France, England, and the Soviet Union, but also Cuba, China, Egypt, the Congo, and scores of other nations will have the bomb.

Will there be no madmen among them? How much time do we have to begin to behave like a great nation which really wants to find the way out, not merely for ourselves but for all humanity?

We read that 600 billion dollars have been spent on war contracts since World War II. Are we so sure that those who profit from such contracts would not prefer to maintain this tension? Or at best may they not feel that a little "tension" is good for the economy? And when this happens are we sure we aren't playing with fire which may consume us all?

Why am I talking about such things here? Because in these fateful days no one of us can afford to stay in an ivory tower, or remain "academic," "leave it to the others," or be "non-controversial." The public has no one but its government and the mass media to turn to for the picture of the threat we face. "Wolf, Wolf" has been shouted so often on behalf of deodorants, antacids, and other consumer obligations, that essential, deadly warnings are no longer credited. I feel that we have a great responsibility to keep the spotlight on the thermometer which shows the extent to which the situation is heating up to a combustible point, until we are able to reverse what I am convinced is otherwise leading to inevitable disaster.

Far wiser and far more worried people than I — from the Churchills and the Schweitzers to scientists on our own university

campuses — warn us that disaster is not just possible. It is *inevitable* unless our present practices are *drastically* changed.

I believe then, that it is not merely fools or alarmists who point out that Western Civilization is in peril.

How are we behaving under this pressure? It is well known to historians and sociologists that how a nation's citizens behave symbolizes their dominant aspirations. How do we stand here? One scholar says we're "wallowing in payola—fat, lazy, selfish, corrupt, soft." Another points to the obvious contrast between our *rhetoric* and our performance: We spent 17 billion dollars last year on tobacco and alcohol—over a billion more than on all public education.

Aldous Huxley has pointed out that advertising and our mass media have found it essential to "by-pass the rational part of man—(thus) making nonsense of the whole idea of democracy, which is based on *conscious* choice on *rational* grounds."

In California a public relations firm has proved that it can practically insure election of candidates who hire the firm. Those in the firm expressed regret a few years ago at the defeat of Upton Sinclair, since he was such a fine man. But they were paid to smear and beat him—and they did. I feel that we must, as I am doing and intend to continue to do, protest against such perversions of our media as this. For I feel they are as dishonest, and as much in need of control, as buying votes openly,

or payola, or any of the most immoral or dishonest practices of our time.

Robert Hutchins recently described our activity as a nation: "to buy things from one another that we do not want at prices we cannot pay on terms we cannot meet because of advertising we do not believe."

Our media are used to create artificial discontent (advertisers call it "product demand") in our people and then we wonder why mental illness is on the increase.

When we say we can't afford the best educational system in the world, or a sane natural resources policy, or slum clearance, or more sensible foreign aid—while consumer goods pour out of our ears, and millions of tons of precious metals are yearly hauled away to junk heaps—how can we fail to see how false this is, how outright hypocritical we look to much of the world?

Undoubtedly you are thinking: Enough of this! What has this to do with the NAEB? I think it has much to do with it.

NAEB MUST DISSENT

I think the NAEB is the electronic voice of American education. I think it should behave accordingly. In this role we must dissent far more often and more violently than we have so far done. We must raise our voice against the prostitution of media that we know have great and noble potentialities.

Industry largely maintains, when we suspect mass media of much of the conditioning of our age, that "they didn't know it was loaded." They intended only to sell goods — not to brainwash citizens or make political or economic idiots of us.

We must have the courage to disengage ourselves from prevailing opinion, whether it's a popular thing to do or not, when evidence requires. We are not merely "brokers" of these media, or of ideas; we are shapers of public policy and of the attitudes of those who see and hear what we offer. For what *we* say and do in the next few years will be sought out far more eagerly than ever in the past.

As educators, our goals should not be to produce tame, "well-adjusted" men, but rather to release human energy — to generate new ideas, and new approaches.

In an age when rationalism is so often being bypassed, and anesthetized, we must re-arouse reason. In an age of groups and groupism, we must be a haven for the dissenting *individual*. In the midst of hysteria and the piling of weapon on weapon, we must have the courage to push for new ideas, whether these new ideas come under the guise of Ghandian non-violence movements, moral rearmament, neutral assistance, or expansion of the role of the U. N. into that of true world government. Surely in an age when violence, war, and armament have

lost all advantage as national tactics, we must look into ideas which, not long ago, we scorned.

War is obsolete. There appear to be no basic scientific secrets any more. At such a time, to quote Dr. Jerome Frank: "The survival of humanity depends on whether we are able to break the thought barrier constructed by countless centuries during which superior force has been the final arbiter of dispute between nations." That time is no longer. In this crisis, in this search for new solutions and new ideas, let the NAEB behave with the courage required. For if our voice, on behalf of these media, is not heard, whose voice shall the people hear? In biblical words: "If the trumpet give an *uncertain* sound who shall prepare himself—?"

If there is one thing which I would have done differently in recent years it is this: In those instances where, on advice, I "muted my trumpet," to continue the biblical analogy, I would not again do so. I *have* spoken out plainly, often. I should have done so *more* often, and those who represent you must continue to do so—to have the courage to take issue head-on with untruth, misuse of the media we believe in, and any other failures you encounter in the electronic communications process which our democracy is entitled to, in order to advance the educational, intellectual, spiritual, and political needs of our nation.

So much for the short-term role of the NAEB in our present situation. How about its long-term role, and its future?

On this occasion, I trust you will excuse me if I do not become involved in problems of detail to any great extent. A discussion of whether the NAEB's greatest efforts should be used in relations with its members, or in external (national and international) relations, is now academic. We cannot avoid doing both. I do not propose to suggest changes in our Board structure or organizational procedures. All the detail changes we could devise would be insignificant. Tampering now would only mean further delays. Let's get on with the program and task at hand. The NAEB is already well enough organized to do all that is necessary. And let us recognize that, if the NAEB is to behave in mature fashion, it must employ, as it has, good people—and then give them responsibility and authority and confidence. For the NAEB has now grown too large to permit all members to participate in *all* its activities and decisions. As an example, training ground, and battlefield of democratic procedures, however, it must insure that the small voice of the individual will be heard—without fear of domination, bullying, or silencing. One other basic suggestion I would make regarding the NAEB's internal behavior: I would suggest that the NAEB is now big enough to support itself. I believe it must assume responsibility for its own

survival rather than looking for handouts from others to keep it alive. Special grants and special projects will, I think, come to the NAEB increasingly—but these should be viewed as what they are, rather than being counted on as basic or integral either to the organization or to its budget.

What organization would not be grateful for over a thousand "salesmen" or "disciples"? That is what the NAEB has in its members. Let each assume his share of the responsibility for the NAEB, including its needs and its policies. There will then be no need for you or me to worry about its survival or growth.

I have already said that I believe we have not been bold enough, or exercised leadership enough, in the past—that we've all too often been behaving like a group of boys or amateurs in an age that urgently needs men of courage and conviction, and professionals.

We have not only not been *performing*—we have not even been *visualizing*—our role in adequate dimensions. We have too often reminded each other of how poor we are, how few, how weak, how little! As your retiring president, I hope I never hear such remarks used again to refer to the NAEB.

NAEB SHOULD LEAD

Our democratic form of government recognizes that certain functions in our national life can be best served by private associations like the NAEB. This recognition

is seen in income tax law provisions which make contributions to such organizations as the NAEB tax deductible. Such associations as ours are traditionally recognized as quasi-official, legitimate representatives and protectors of certain important sectors of the public interest and the public domain of our nation. We are *expected* to exercise leadership. How well have we done so?

In organization structure, in an age of the organizational man, too many groups betray an inclination to demonstrate a narrow loyalty to "the corporation." This dulls individual awareness of the effects of decisions on the community as a whole. If the NAEB ever were to become this snug, this ingrown, this selfish—it would deserve to perish.

Our age is much too dangerous for this kind of selfishness. If the NAEB "plays it safe," and "looks after No. 1," it will survive—like a vegetable. Greatness demands commitment to a cause far larger than oneself. That is what I would ask of the NAEB.

Let me illustrate. With its roots in the scholarly community, the NAEB has a responsibility for the advancement of knowledge, not just its *distribution*. When I say the NAEB must help solve the intellectual, spiritual, cultural, and political leadership needs of this planet—I do not mean as a mere pipeline. I mean as explorers for intellectual oil . . . as people seeking ideas — ideas which may save us.

Who would have said of the odd-looking, ill-dressed Karl Marx, as he worked at the British Museum in the early 1840's, that he would have perhaps the most influence of any man in the 20th century? Who would have believed it? But he demonstrates the *power* of an idea. It is this type of ideas — but for good rather than evil — that we must all seek, for our harassed planet.

Space satellites are likely to have a revolutionary effect on public life, education, and broadcasting which will soon make many of our activities and plans look as out of date as Indian smoke signals. As we move from plans for exchange of tape to live network interconnection, let us not get the impression we've solved these problems. We've only barely begun to get at them.

The plumbing system in a home or a nation may be pure gold; if the fluid flowing through the pipes is contaminated, or saturated with narcotics, or so sweet as to be sickening, what have we gained?

No! I must insist: It is not the mechanism, or the machinery or the budget which will determine the success of the job we do. It is the *value* of the *ideas*, and the firmness and convictions of the people who carry them out that make the difference our nation needs. Since today virtually *every* problem sooner or later becomes an international and universal one, no educational or other problems will be solved by the organizationally narrow, or the chauvinistic, nationalistic approaches we

have all too often displayed in the past. Our national leadership generally (of either party) may not yet have discovered how true these facts are, or the magnitude of the change that has been occurring in the landscape around us. I think we must declare these truths. Where I stand with reference to the U. N., UNESCO, and unselfish international efforts is well known. I think the NAEB must always be equally clear.

I don't know where the ideas and approaches which will get humanity "off the hook" will come from. If I were to predict, I would guess that what is needed will not come from large organizations, or from politicians, or the major political parties, or presidents of corporations, or those in high places. Neither do I think it will come from brainstorming, or contests, or the score of other gimmicks that we have come to count on (instead of hard work) to solve our problems. It never has yet. I would guess that it will be from modest scholars, small groups, queer characters whom we have been ignoring. As President Emeritus J. L. Morrill of the University of Minnesota has declared: "Let us remember that the ideas that have saved civilization from stagnation and decay have always been upsetting — some would say subversive . . ." Since there is today so little opportunity for these voices to be heard above the roar of the *commercial* mass media, I would plead with NAEB members to be especially careful to

keep the channels open for such "subversive" ideas as our nation and Western civilization now need for survival. Let us not sniff condescendingly at modest proposals from small groups—whether they be on moral rearmament or non-violent approaches — lest we too be crushing out the very spark which may contain mankind's great hope.

We must cultivate and nourish the intellectual and spiritual soil in which *new* ideas (however subversive or impractical they may at first seem) may germinate and grow large enough to be exposed to the light of day.

I don't claim that in our own membership we have all the minds necessary to provide the knowledge and original approaches needed to save us and what we stand for. But our member institutions were in most cases the ones on which our government called for such things as the Manhattan Project. They *do* possess the resources — and we possess the qualifications and direct access to the public — to trigger significant reactions which can be revolutionary in their import.

Let the NAEB then push forward, providing a mechanism through which the most mature and prosperous members of our group help newer and weaker members to explore their intellectual back yards and resources. Education has been given a black eye by certain groups in recent space developments and in recent

years. Let us help education develop dramatically favorable public reactions by what we *do* in this situation rather than by our complaints or appeals or protests.

The NAEB's mechanism for handling ideas, action, and response must admittedly be improved and speeded up if we are to do all this. The curious modesty and self-conscious sensitivity so often exhibited within our ranks must be forgotten. We have not only an opportunity but also a responsibility to see that ideas, advice, suggestions, reach our Congress, our administration, and the public—with as little delay and as much clarity as possible.

Education and professionalism — the all too abstract role and meaning of the NAEB — have been difficult to define. They have attracted few headlines. They are not very sensational or dramatic. Here is a chance to show what we mean — not professionalism or education for their own sake, but for the contributions they can make to our nation, our world, the preservation of human and demo-

cratic values, the sanctity and dignity of man, and respect for Christian principles and spiritual values.

In the totalitarian nations the channels and funnels from the people to the rulers are usually purposely blocked by the intensity of the flow from ruler to subject. I fear that in our nation, too, communication channels have become so clogged with product appeals, and frivolous and escapist cargo, that we have come to suffer from this same type of congestion. Let the NAEB assume responsibility for blasting open these channels of communication so the life blood of democracy can begin to circulate in the two-way flow that our survival depends on.

Seek out the poor and give them again a voice. Seek out the disturbing truth and let it be heard. Seek out ideas and help give them form and shape — not angrily or desperately, but humbly and responsibly as befits a group like ours and all American education in this, our testing time. That, I think, must be the mission of the NAEB.

Projects and Products

a column by Philip Lewis

*Director, Bureau of Instruction Materials
Board of Education, Chicago*

The New Marconi Mark IV Television Camera

This novel camera utilizes the improved 4½ inch Image Orthicon tube, is compact in size, and is designed to meet the need for consistent top quality television pictures (Figure 1). There are now more than 600 of these units in use around the world and in at least a score of installations in the United States since they became available here a short time ago.

The design objectives and requirements are listed to indicate the many fine features in the camera:

1. The camera was built especially for the 4½ inch Image Orthicon tube, and the optics, mechanics, and electronics match the superior performance of the picture tube.
2. The circuitry is particularly stable and eliminates the need for frequent readjustments of controls.
3. Simple to operate as a motion picture camera; all electrical controls with the exception of those relating to the view finder have been removed. This design philosophy reduces the operator's responsibilities to properly positioning

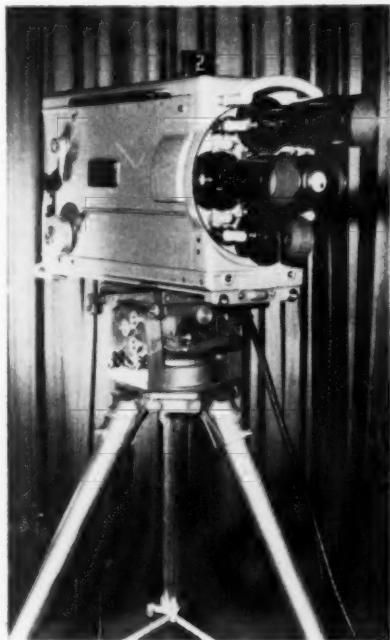


Figure 1

the camera, selecting the lens, and focusing.

4. Simple conversion among the 525/30, 405/25, and 625/25 television standards is provided to meet the requirements of international tape syndication.

5. Associated camera equipment

has been designed in such a manner that the same units are equally adaptable to studio and remote use. Even the camera channel setting can be made precisely and checked from the control room without the need for assistance from the camera operator.

6. All components are easily accessible to simplify trouble-shooting operations, and electronics sub-assemblies are logically arranged.

Space does not permit mention of all of the refinements and facilities provided, but the Marconi camera incorporates almost every known improvement. The 4½ inch Image Orthicon tube reduces or

eliminates the drawbacks of the 3 inch tube—noise, black halo around highlights, poor definition, inability to produce true edge transitions, poor grey scale reproduction, and target sticking.

Additional details and literature may be obtained from Ampex Professional Products Company, Video Products Division, Box 3000, Redwood City, California.

Low Cost Prompting Device

The TelExecutive is a scaled-down version of larger and more costly equipment used by the television industry. It is an electric



Figure 2

prompting device which holds the script on spools and automatically moves it across an illuminated panel at a speed controlled by the speaker (Figure 2). The unit may be used for large assemblies, meetings, lectures, classroom work, gatherings, or wherever speeches are made.

Copy for the talk is prepared on continuous-form translucent paper. It is then wound on an interchangeable spool and placed in the device in the same manner as loading film in an ordinary box camera. The script may be prepared on a special large-face typewriter, hand lettered, or typed on a regulation typewriter with the lines spaced appropriately so it is easily readable by the individual speaker. A spool has the capacity for more than one hour of continuous script. Several short speeches may be placed on the same spool if desired, and scripts prepared in this manner may be filed for later reuse.

During the talk, a palm-sized hand control is used to establish and vary the speed at which the script moves. It may be stopped at any time, operated at a constant speed, or reversed. Control of dim or bright illumination from within the TelExecutive provides glare-free reading conditions regardless of room lighting.

The prompter plugs into an ordinary AC outlet and is smaller in size and lighter in weight than a portable typewriter. A dispatch-type leather case, extra spools, script paper, and editing kit accompany the prompting unit at a

total cost of \$169.50. Telit Industries, Inc., 226 South Wabash Avenue, Chicago 4, Illinois, are the distributors.

I-7/8 IPS Magnetic Recording System For Stereophonic Music

A tape cartridge, no larger than a folded handkerchief, which plays sixty minutes of high fidelity stereophonic music without interruption, is a key element in a new home recorded-music system. This arrangement, developed by CBS Laboratories under a research program conducted for Minnesota Mining and Manufacturing Company, reportedly gives music comparable to professional tape equipment in quality of reproduction, combined with the ease of operation of a conventional record player (Figure 3). The new system has an automatic changer capable of playing a series of cartridges.

Some of the important features and parameters of the new tape cartridge system are as follows:

1. Tape speed is 1-7/8 inches per second. Each track is 40 mils wide and there is provision for three tracks.
2. The cartridge is approximately $3\frac{1}{2}$ inches square and $5/16$ inches thick, and contains sufficient tape to play continuously for 64 minutes — thus able to carry 98% of the music compositions without interruption.
3. The prototype machine accepts five cartridges and will play



Figure 3

Dr. P. C. Goldmark, president of CBS Laboratories, demonstrates tape cartridge laboratory model. Inset shows tape cartridge stacking arrangement.

them automatically in sequence. One can, however, reject a cartridge during any part of its play, similar to a record changer. The production versions of this machine now under development by the Zenith Radio Corporation will have fast forward and reverse speeds. The same instrument will also serve as a home recorder using cartridges with blank tape.

4. The third track is located in the center of the 150 mil tape and

will be optional to provide the stereophonic sum signal delayed and reverberated to an optimum degree to provide greater concert hall realism.

Address Mr. Paul Brown, Department of Communications, Minnesota Mining & Manufacturing Company, Saint Paul 6, Minnesota, for more details and engineering data concerning this development.

A SALUTE TO OUR INDUSTRIAL ASSOCIATES*

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* "Any manufacturing firm, engaged in the manufacture and/or sale of broadcasting and auxiliary equipment, wishing to further their cooperation with the NAEB and wishing to foster educational broadcasting through the NAEB may be elected an INDUSTRIAL ASSOCIATE." NAEB Constitution.



NAEB

Research
Fact
Sheets

Series I: The Effectiveness of Television as a Teaching Tool

88. The Norfolk City Experiment in Instructional Television: The Big Picture, September 1957 — June 1960

By Grace Nichols Johnson and Frances Hardy.
Norfolk City Public Schools, 1960. 50 pages.

[The second year of the three-year program was reported in Fact Sheet Series I, No. 80.]

The purposes of this three-year study were to gather data on the following points:

1. The feasibility of teaching large classes by television and the kind and amount of other services needed to set up optimum conditions for learning.

2. The scheduling and school building problems in teaching a number of large classes via television, and whether or not these problems can be met at low cost and without sacrificing quality instruction.

3. The budgetary implications—both capital and operating — of the savings in teacher time, in building space, and in equipment and other teaching aids as a re-

sult of television instruction of large classes.

4. How best to develop teacher talent, not only for television instruction, but also for teaching larger classes in regular classrooms.

5. What areas of instruction can best be taught through the medium of television.

Schools used in the television experiment were representative with respect to age distribution—four elementary schools, two junior high schools, three senior high schools — in the Norfolk City Public School system. During the three years of the study, 25 other schools in the city viewed the programs regularly while many schools in outlying districts also tuned in. The participating television station was WVEC-TV, a commercial TV station.

Subjects taught were science in the 5th and 6th grades; U. S. history, 8th grade level; and geometry for the 10th year.

Changes made during the course of experimentation: During the first year, a 30-minute science program was taught to the 5th and 6th grades simultaneously, five days a week. This plan was changed the second year to a 20-minute, 4-day-a-week science program, taught to the 5th and 6th grades separately, adding a 20-minute arts program on Friday.

With this time reduction, plus a 5-minute cut-down of the American history program, the station allowed the addition of a 30-minute science lesson for the 9th grade and two 10-minute Spanish lessons for 5th and 6th grades respectively.

The programs continued in the same way during the third year, except telecasts occurred in the morning.

CONCLUSIONS

1. Television will provide a new and dramatic medium for furnishing the highest quality of teaching both for students and teachers.

2. It will make the services of specialized teachers (especially in fields which superintendents indicate are not adequately staffed with qualified teaching personnel — such as science, mathematics, and foreign languages) available to a greater number of students and also will provide these services to students in our rural areas as well as the urban areas.

3. Existing teachers will be enabled with the aid of TV to deal with a greater number of students in many specialized fields.

4. Television will provide students with visual experiences heretofore unavailable by the use of ordinary teaching methods. For example such things as intricate laboratory experiences, nature demonstrations, geological demonstration, actual historical occasions, visits to various types of industrial and art centers and other practical demonstrations may be presented visually.

5. It will speed up the whole educational process so as to put the state in a more competitive position with the rest of the nation, and the world.

6. TV will increase the opportunities and incentives available for teachers.

7. TV will tend to reduce disciplinary problems and encourage more attentiveness to the lesson material.

8. It will introduce improved techniques of teaching and a fresh point of view in the standard subject matter.

9. TV will not do away with the classroom teacher.

10. It will not eliminate the desirability of classroom discussion or the direct teacher-pupil relationship.

11. TV will not eliminate the necessity for maximum effort on the part of each student to develop his own intellectual capabilities.

—GERALDINE JOHNSON

NAEB

Research
Fact
Sheets

Series I: The Effectiveness of Television as a Teaching Tool

89. Chicago's TV College: Final Report of a Three Year Experiment

By Clifford G. Erickson and Hymen M. Chausow,
Chicago City Junior College, August, 1960. 98 pages.

[See Fact Sheets Series I, Nos. 53 and 72 for previous reports on this experiment.]

A three-year (1956-59) experiment was conducted by the Chicago City Junior College in offering regular college courses for credit via open-circuit television on Chicago's ETV station, WTTW.

- Enrollment: The average credit enrollment per semester was 1,261 persons for 2,321 course registrations, equivalent to a full-time enrollment of 456 college students. Credit students averaged 1.84 courses via television per semester.

On the average, 66.5% of the original credit enrollees completed

all course work and received a grade.

The average not-for-credit enrollment per semester was 3,550 individuals for 5,521 course registrations or an average of 1.56 courses per student.

- Retention: Retention in a given course was raised by an increase in the interaction of students with learning materials and with teachers through mail-in assignments, trial tests, face-to-face conferences, and telephone conference hours.

- Costs: The cost per credit student of offering college instruction via television remained higher than

classroom cost for an equal number of units of credit instruction. If, however, the additional educational service to not-for-credit students and regular not-enrolled viewers could have been measured, a unit cost much lower than classroom costs could have been assigned to that portion of the service received by credit students only.

Unit costs for offering telecourses varied with enrollment and type of course. Centralization of the enrollments of television students reduced the unit cost, and also increased administrative and teaching efficiency.

● Achievement. In all subjects taught during the first year of the experiment—English, biology, social science, political science, and mathematics—the television experimental group showed higher achievement.

In the second year, achievement comparisons were made primarily between TV-at-home and conventionally taught evening adult students. Significant differences were found, favoring the TV group, in humanities, biology and, in one instance, physical science.

In the third year, variations were found in the comparisons of TV-at-home, TV-in-class, and control classes.

● Special Studies: Both credit students and not-for-credit home-viewing television students expressed positive attitudes to the open-circuit television offering of standard college courses. Even credit students who withdrew expressed positive attitudes and a

willingness to re-register in TV College.

● Conclusions: Offering college courses for credit on open-circuit television in a metropolitan area will find a receptive audience of credit students who will be older and more highly motivated than normal college-age classroom students. Many of these students will be interested in completing degree requirements. Some prospective graduates will want to use telecourse instruction exclusively in meeting these requirements.

College courses can be presented successfully on open-circuit television without adjustment of primary objectives and learning materials.

Classroom standards of instruction and evaluation can be maintained for telecourses, and telecourse students can be awarded credit equal to that for classroom instruction.

Accrediting associations, professional associations, schools, and colleges will recognize the validity and transferability of college credits earned by television instruction.

The presentation of telecourses which are directed primarily to credit students will acquire, on the average, a not-for-credit enrollment three times the credit enrollment. The viewing audience for any given telecast will vary from twenty to fifty times the total of credit and not-for-credit enrollments.

—GERALDINE JOHNSON

NAEB

Research
Fact
Sheets

Series I: The Effectiveness of Television as a Teaching Tool

90. The Florida West Coast Project for the Utilization of Television in Large-Class Teaching: First Year Report, July, 1959 — June, 1960

By Thomas H. Rothchild and R. LeRoy Lastinger,
August 15, 1960. 41 pages.

The Florida West Coast Project for the Utilization of Television in Large-Class Teaching participated in the third year (1959) of the National Program for the Use of Television in the Public Schools.

The project actively involved seven county school districts, with 22 schools, 76 teachers, and 6,689 students — and the community station, WEDU.

Improvement of instruction was noted in the use of TV large classes. Large class enrollment ranged from 97 to 321 pupils.

OBJECTIVES

1. To establish whether television could contribute significantly to the improvement of instruction in the experimental area.

2. To establish whether the use of television, especially as a resource in teaching to large classes, could contribute significantly to the improvement of education.

3. To demonstrate various means of large-class organization, with television as a resource, to effect suggestions for plant and staff utilization.

Subjects offered were: social studies, 5th and 6th grade, daily, 25 minutes; related subjects, 5th and 6th grade, daily, 20 minutes; mathematics, 7th grade, daily, 30 minutes; United States history, 8th grade, daily, 30 minutes; biology, 10th grade, daily, 30 minutes;

American problems, 12th grade, daily, 30 minutes.

Six elementary schools in the project used the Stoddard Plan organization developed by Dr. A. J. Stoddard of the Ford Foundation. Basically this plan was that each child spent 90 minutes in the large class, with time equally divided between watching two TV lessons (social studies and related subjects) and working under the direction of the classroom teacher. Then the large group was divided into two or three sections for two 45-minute periods of work, during which time there was instruction in physical education, art, music, and science. For the rest of the day, each grade level was assigned to skills classrooms, 25 children to the class, for instruction in language arts, arithmetic, and reading.

RESULTS

Students do learn as effectively in large classes using TV as in conventional classes.

Students accept TV large classes and say they work as hard or harder than before.

Discipline is no problem in the large class.

Large classes and Stoddard Plan organizations provide improved staff utilization.

Large classes and Stoddard Plan organizations prevent double sessions and provide for better utilization of the school plant.

Principals experience few problems with large-class TV.

Teachers were given ample planning and counseling time.

There are problems in keeping the skills classes at the useful size.

—GERALDINE JOHNSON

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The NAEB began 35 years ago, as a loosely knit organization of a few pioneers in educational broadcasting. As the only professional or trade association in the field, throughout the years it has worked to improve the professional status of the educational broadcaster—and the quality of educational programing. Nine years ago, members established a tape distribution network for educational radio. This self-supporting network today supplies over a hundred educational radio stations with ten hours of programing a week, programs from foreign as well as domestic sources.

